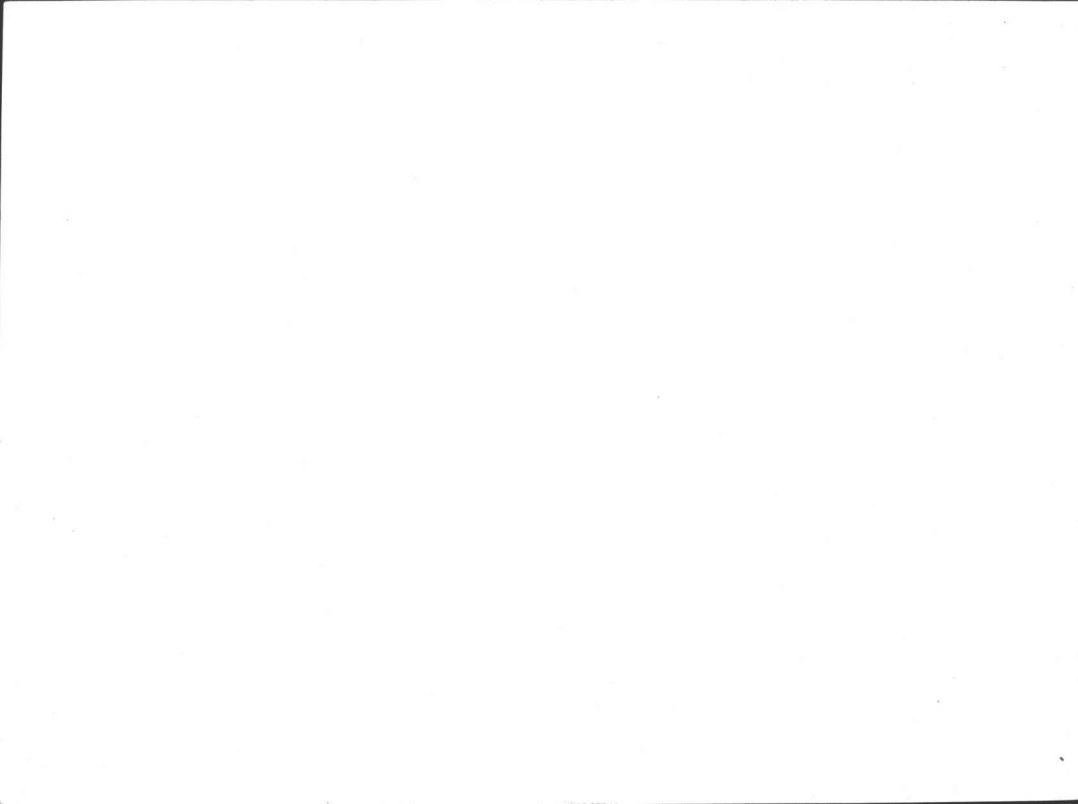


HONDA 125

MODEL SL125

OWNER'S MANUAL



PREFACE

This booklet is your guide to the basic operation and maintenance of your new Honda SL-125. Please take the time to read it carefully. As with any fine machine, proper care and maintenance are essential for trouble free operation and optimum performance. Your authorized Honda dealer will be glad to provide further information or assistance and is fully equipped to handle your future service needs.

Thank you for selecting a Honda. We wish you many miles of continued riding pleasure in the years ahead.

These specification details do not apply to any particular product which is supplied or offered for sale. The manufacturers reserve the right to vary their specification with or without notice and at such times and in such manner as they think fit. Major as well as minor changes may be involved. Every effort, however, is made to ensure the accuracy of the particulars contained in this brochure. Consult the Dealer with whom your order is

placed for details of the specification of any particular product.

This publication shall not constitute in any circumstances whatsoever an offer by the Company to any person. All sales are made by the Distributor or Dealer concerned subject to and with the benefit of the standard Conditions of Sale and Warranty given by the Distributor or Dealer, copies of which may be obtained from him on request.

CONTENTS

SERIAL NUMBER LOCATION	5
CONTROL LOCATION	6
OPERATING INSTRUCTIONS	9
Speedometer/Tachometer.....	9
Main Switch	10
Emergency Switch	10
Headlight Control Switch.....	11
Horn Button.....	11
Steering Lock.....	12
Rear Shock Absorber	12
Helmet Holder.....	13
FUEL AND OIL	13
Fuel Valve	13
Fuel Tank.....	14
Engine Oil Recommendation.....	15
Viscosity.....	15
PRE-RIDING INSPECTION	16
STARTING THE ENGINE	16
Starting a Cold Engine.....	16
Starting in Extremely Cold Weather.....	17

Starting a Warm Engine.....	17
BREAK-IN PROCEDURE	18
RIDING THE MOTORCYCLE	18
PARKING	19
TIRE RECOMMENDATION	20
TOOL KIT.....	21
MAINTENANCE SCHEDULE.....	22
MAINTENANCE OPERATIONS	25
Engine Oil Level	25
Engine Oil Change	25
Oil Filter Maintenance.....	26
Spark Plug Replacement and Adjustment	28
Contact Breaker Point Adjustment	29
Ignition Timing.....	30
Valve Tappet Adjustment.....	31
Cam Chain Adjustment.....	32
Air Cleaner Maintenance.....	33
Throttle Cable Inspection	34
Throttle Cable Adjustment	34
Carburetor Adjustment.....	35

Fuel Filter Maintenance	36
Clutch Adjustment.....	37
Drive Chain Maintenance.....	39
Front Brake Adjustment.....	42
Rear Brake Adjustment	43
Front Suspension Inspection	44
Front Fork Oil Change	44
Battery Maintenance.....	45
Headlight Beam Adjustment.....	46
Stoplight Switch Adjustment.....	47
SPECIFICATIONS	48
WIRING DIAGRAM	51

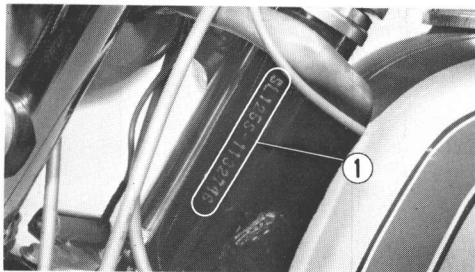
///////////////// SERIAL NUMBER LOCATION ///////////////////

The frame serial number ① is stamped on the left side of the steering head.

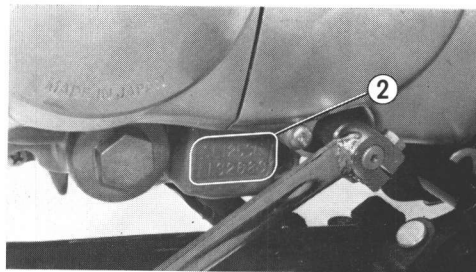
The engine serial number ② is stamped on the lower left side of the crankcase,

just above the left foot peg.

Refer to these serial numbers when ordering replacement parts from your Honda dealer.

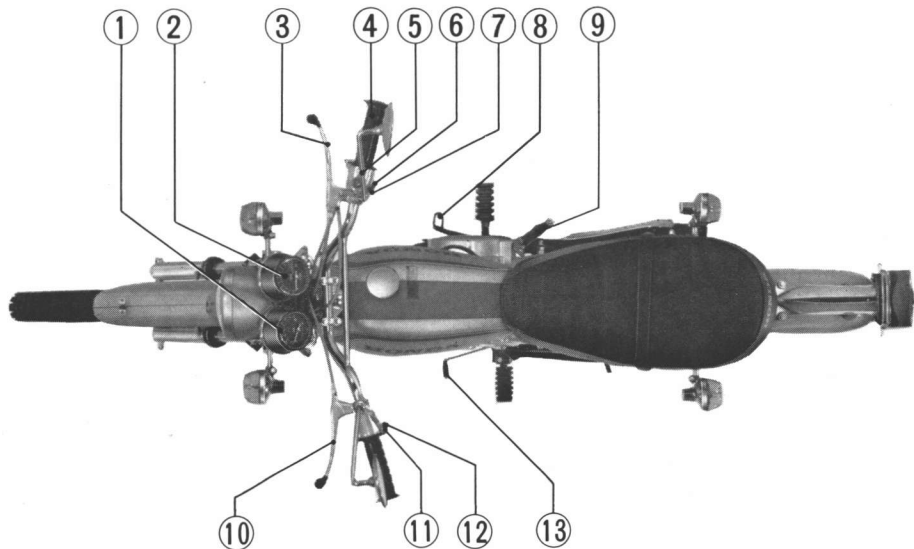


① Frame serial number



② Engine serial number

CONTROL LOCATION



- ① Speedometer
- ② Tachometer
- ③ Front brake lever
- ④ Throttle grip
- ⑤ Emergency switch

- ⑥ Beam selector switch
- ⑦ Headlight control switch
- ⑧ Rear brake pedal
- ⑨ Kick starter pedal
- ⑩ Clutch lever

- ⑪ Turn signal control switch
- ⑫ Horn button
- ⑬ Gear change pedal



① Kick starter pedal

② Rear brake pedal

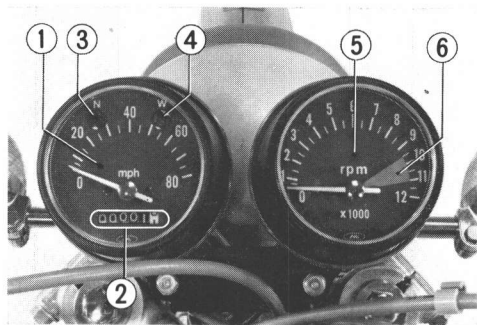


① Main switch ② Fuel valve ③ Gear change pedal ④ Choke lever

//////////////// OPERATING INSTRUCTIONS //////////////////

Speedometer/Tachometer

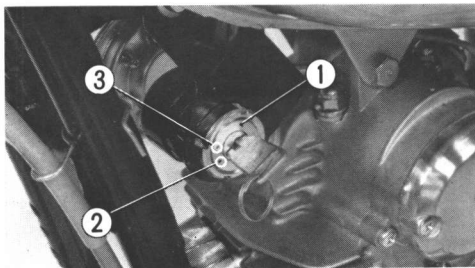
Speedometer and tachometer are mounted on the headlight case. Their respective functions are shown in the table.



Ref. No.	Description	Function
1	Speedometer	Indicates driving speed.
2	Odometer	Indicates total accumulated distance travelled.
3	Neutral indicator light (green)	Light will be on when the transmission is in neutral.
4	Turn signal indicator light (amber)	Light will flash, when turn signal lights are operating.
5	Tachometer	Indicates engine RPM.
6	Tachometer-RED ZONE	The motorcycle should not be operated in the red zone for long time and should not be operated beyond it.

Main Switch

The main switch ① is located on the left side below the front end of the fuel tank. Functions of the respective switch position are shown in the table at the right.



- ① Main switch
- ② "OFF" position
- ③ "ON" position

Key position	Function	Key removal
② "OFF"	All electrical circuits are open; engine can not be started.	Key can be removed.
③ "ON"	Electrical circuits are closed; engine can be started; headlight and tail/stop light can be operated; neutral indicator light is on when the transmission is in neutral.	Key cannot be removed.

Emergency Switch

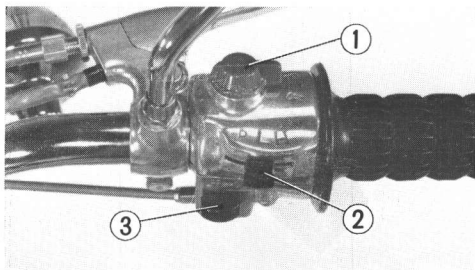
The three position emergency switch ① (Page 11) is located on top of the right handle bar grip switch housing. In the "ON" position (center) the ignition circuit is complete and the engine operates. In the "OFF" position (either side of center) the ignition circuit is open and the engine will not operate.

This switch is intended primarily as a safety or emergency switch and normally remains in the "ON" position.

The ignition will not operate unless the main switch is in the "ON" position.

Headlight Control/Beam Selector Switch

Move the headlight control switch ③ to "ON" position to turn on the headlight. Positioning the headlight beam selector

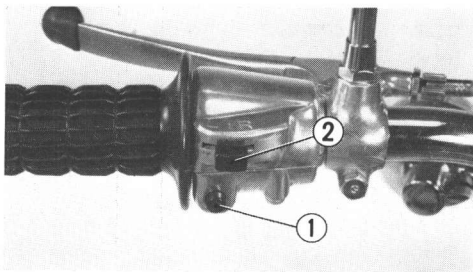


- ① Emergency switch
- ② Beam selector switch
- ③ Headlight control switch

switch ② to the "L" position will light low beam, and switching to the "H" position will light high beam. "P" is the position light position.

Turn Signal Control/Horn Switch

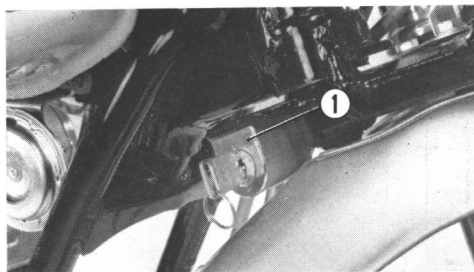
For making a left turn, move the turn signal control switch ② to "L" position, and to "R" when making a right turn.



- ① Horn button
- ② Turn signal control switch

Steering Lock

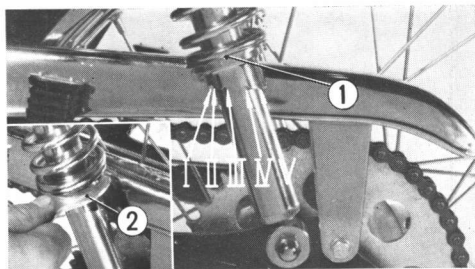
The steering lock ① is located on the steering stem directly below the steering head. Turn the handle bar to the left, insert the key into the lock, turn clockwise 180° and remove the key. This locks the steering and prevents riding the motorcycle.



① Steering lock

Rear Shock Absorber

The rear shock absorber ① has five adjustment ranges and is adjusted to meet the different types of road or riding conditions. ① position is for normal riding with the damper spring strength increasing progressively from Ⅱ to Ⅴ; when used under heavy load conditions or when operating on bad roads.



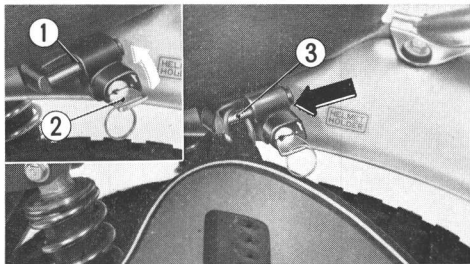
① Rear shock absorber

② Pin spanner

Helmet Holder

Helmet holder ① eliminates carrying your helmet when parking. The holder can be locked to prevent theft.

1. Unlock the holder with the main switch key ②.
2. Hang your helmet on the holder pin ③ and push the pin to lock. This action automatically locks the helmet holder.



① Helmet holder
② Main switch key

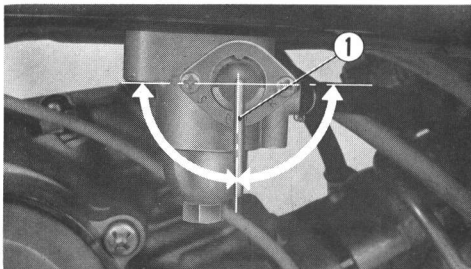
③ Holder pin

Fuel Valve

The fuel valve ① is mounted on the left under side of the fuel tank.

"S" position

When the fuel valve is turned to the "S" position, fuel cannot flow from the fuel tank to the carburetor. Set the valve in this position whenever the motorcycle is not in use.



① Fuel valve

"ON" position

When the fuel valve is turned to the "ON" position, fuel will flow from the main fuel supply to the carburetor.

Set the valve in this position when the engine is to be operated from the main fuel supply.

"R" position

When the fuel valve is turned to the "R" position, fuel will flow the reserve fuel supply to the carburetor.

The fuel valve should be set in this position only after the regular fuel supply has been consumed. The reserve fuel supply is **1.5 liters**.

When it becomes necessary to switch to the reserve fuel supply, this serves as a warning to the rider that it is time to refill the fuel tank.

Fuel Tank

Fuel tank capacity is **7.0 liters** including **1.5 liters** in the reserve supply. The fuel tank cap ① is removed by twisting it counterclockwise. It is recommended that 85 or higher octane number gasoline containing a small percentage of lead.

When refueling, take care to exclude dirt, water, or other contaminants from the fuel tank.

WARNING:

Gasoline is flammable, and explosive under certain conditions. Always stop the engine



① Fuel tank cap

and do not smoke or allow open flames or sparks near the motorcycle when refueling.

Engine Oil Recommendation

Use only high detergent, premium quality motor oil certified to meet or exceed US automobile manufacturer's requirements for Service Classification SE.

Motor oils intended for Service SE will show this designation on the container. The regular use of special oil additives is unnecessary and will only increase operating expenses.

Engine oil should be changed at the intervals prescribed in the Maintenance Schedule on page 23.

NOTE: Engine oil is a major factor affecting the performance and service life of the engine. Non-detergent and low quality oils are specifically not recommended.

Viscosity

Viscosity selection should be based on the average atmospheric temperature in your riding area. Change to the proper viscosity oil whenever the average atmospheric temperature changes substantially.

Recommended oil viscosity:

General, all temperatures **SAE 10 W-40**

Alternate:

Above 59°F **SAE 30**

32° to 59°F **SAE 20 or 20 W**

Below 32°F **SAE 10 W**

////////// PRE-RIDING INSPECTION //////////

Prior to starting your motorcycle, it is advised that you perform a general inspection as a matter of habit to make sure that the motorcycle is in good, safe riding condition. This inspection will only require a few minutes and can save you much time and expense in the long run.

Check the following items and if adjustment or servicing is necessary, refer to the appropriate section in the manual.

1. Engine oil level—add engine oil if it is lower than the lower mark on dipstick (page 25).
2. Fuel level—make sure there is sufficient

fuel for the trip (page 13).

3. Front and rear brakes—adjust free play in the front brake lever and brake pedal if it is incorrect (page 42~43).
4. Tire air pressure—adjust the tires if it is too low (page 20).
5. Drive chain—adjust chain tension if it is too loose (page 39~40).
6. Throttle operation—repair if it is not smooth (page 34).
7. Tail/stoplight and headlight—repair if they do not operate properly (page 46~48).

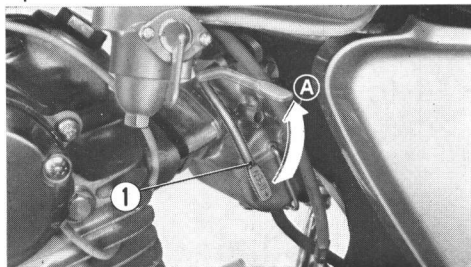
////////// STARTING THE ENGINE //////////

Starting a Cold Engine

1. Turn the fuel valve to the “ON” position (page 13).
2. Insert the key into the main switch and turn to the “ON” position. At this time

observe the green neutral indicator light on the left side of the speedometer. The light will be lit when the transmission is in the neutral position. (page 9).

3. Raise the choke lever to the full closed position ①.



① Choke lever

4. Twist the throttle grip inward slightly and operate the kick starter with the right foot, starting from the top of the stroke and following through to the bottom with a rapid and continuous kick. Operate several times until engine starts.

If the engine fails to start after several repeated attempts, turn off the main switch and lower the choke lever to the full open position, twist the throttle grip inward fully and crank the engine using

the kick starter pedal.

This is then followed by turning the main switch to the "ON" position and following the starting procedure outlined in steps 1 through 4, however, at this time the use of the choke is not necessary.

5. After the engine starts, operate at approximately 1,500 rpm until the engine properly responds to the throttle with the choke fully open.

Starting in Extremely Cold Weather

Prime the engine before starting by cranking several times with the kick starter pedal. The main switch should be turned "OFF", the choke fully closed and the throttle opened. Followed by the procedure for starting a cold engine.

Starting a Warm Engine

When the engine is to be re-started while it is still warm, proceed as for cold engine starting, however, the use of the choke is not necessary.

//////////////////// **BREAK-IN PROCEDURE** //////////////////////

During the first 600 miles (1,000km), operate your new SL-125 so the engine neither pulls laboriously nor exceeds 7,500R.P.M. Avoid full throttle operation, and select your gear

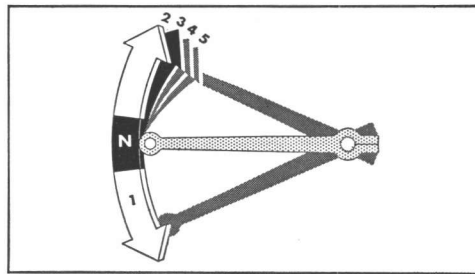
changes to spare the engine undue stress. Careful break-in procedure during the initial mileage will measurably extend the service life of the engine.

//////////////////// **RIDING THE MOTORCYCLE** //////////////////////

1. After the engine has been warmed up, the motorcycle is ready for riding.
2. While the engine is idling, pull in the clutch lever and depress the gear change pedal to shift into low (1st) gear.
3. Slowly release the clutch lever and at the same time gradually increase the engine speed by twisting the throttle grip inward. Coordination of the throttle and clutch lever will assure a smooth positive start of the motorcycle.
4. When the motorcycle attains a speed of approximately 10mph (15kph), close the throttle, pull in the clutch lever and shift to 2nd gear by raising the gear

change pedal.

5. This sequence is repeated to progressively shift to 3rd, 4th and 5th (top) gear. The shifting pattern is indicated below.



7. When decelerating the motorcycle, coordination of the throttle and the front and rear brakes is most important.

1) The smooth gradual application of both the front and rear brakes together with the required throttle coordination will, under most conditions, assure good control and stability during deceleration. As the motorcycle speed is reduced, it is common practice to shift the transmission progressively into the gear appropriate for the motorcycle. This assures maximum control through better braking effectiveness and acceleration when necessary.

2) For maximum deceleration and stopping, close the throttle, apply both the front and rear brakes simultaneously, and as the motorcycle comes to a stop, disengage the clutch. This maneuver requires smooth coordination of the control and to maintain skill it should be practiced frequently. Independent application of either the front or rear brakes is possible, but if only one brake is applied strongly enough to cause the wheel to lock, braking effectiveness is greatly reduced and it will be difficult to control the motorcycle.

///////////////// **PARKING** //////////////////////////

When parking the motorcycle, position the main switch to the "OFF" position and remove the key. Also, the steering

should be locked and the fuel valve turned to the "S" position.

//////////TIRE RECOMMENDATION//////////

Correct inflation pressure will provide maximum stability, riding comfort and tire life. Be sure to follow the tire specification.

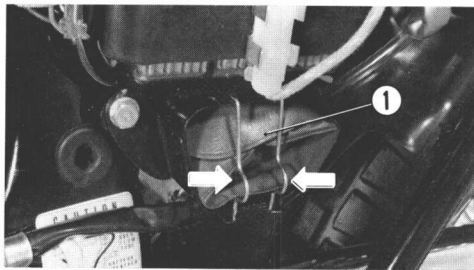
NOTE: Over or under inflation of the tires causes abnormal tread wear or other defects which may result in serious accidents. Riding with under-inflated tires will cause the tires to slip out of place in the rims, damaging the innertube valves.

From time to time check the tires for inflation pressure and correct it, if necessary.

Cold tire pressure: psi (kg/cm ²)	
Driver only	Front: 26 (1.8)
	Rear: 28 (2.0)
Driver and passenger	Front: 26 (1.8)
	Rear: 34 (2.4)
Tire size	Front: 2.75-21
	Rear: 3.25-18

////////////////// **TOOL KIT** //////////////////////

The tool kit ① is mounted in the compartment located at the center of the motorcycle. Minor adjustment and parts replacement can be performed with the tools contained in the kit. Adjustments or repairs which cannot be performed with these tools should be referred to your Honda dealer



① Tool kit

Listed below are the items included in the tool kit.

- 10×12 mm open end wrench
- 14×17 mm open end wrench
- Pliers
- No. 2 screw driver
- No. 2 cross point screw driver
- No. 3 cross point screw driver
- Screw driver grip
- Spark plug wrench (18×19 mm):
for spark plug and rear axle nut
- Handle bar
- Pin spanner
- Tool bag

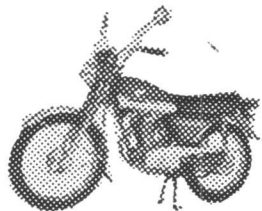
Items provided with the motorcycle in a separate package

- A can of touch-up paint
- Spare battery fuse

////////////////////// **MAINTENANCE SCHEDULE** ////////////////////////

The mileage intervals shown in the MAINTENANCE SCHEDULE are intended as a guide for establishing regular maintenance and lubrication periods for your Honda. Sustained severe or high speed riding under adverse conditions may necessitate more frequent servicing. To determine specific recommendations for conditions under which you use your motorcycle,

consult your authorized Honda dealer. Especially when your Honda SL-125 has been turned over or involved in an accident, have your Honda dealer carefully inspected the major components e.g. frame, suspension and steering parts for misalignment or damage to insure further safe operation



MAINTENANCE SCHEDULE This maintenance schedule is based upon average riding conditions. Machines subjected to severe use, or ridden in unusually dusty areas, require more frequent servicing.	INITIAL SERVICE PERIOD	REGULAR SERVICE PERIOD—Perform at every indicated month or mileage interval, whichever occurs first.			
	500 miles	1 month 500 miles	3 months 1,500 miles	6 months 3,000 miles	12 months 6,000 miles
ENGINE OIL—Change	●		○		
CENTRIFUGAL OIL FILTER—Clean					○
OIL FILTER SCREEN—Clean					○
SPARK PLUG—Clean and adjust gap or replace if necessary				○	
CONTACT POINTS AND IGNITION TIMING—Clean, check, and adjust or replace if necessary.	●			○	
*VALVE TAPPET CLEARANCE—Check, and adjust if necessary	●			○	
*CAM CHAIN TENSION—Adjust	●			○	
POLYURETHANE FOAM AIR FILTER ELEMENT— Clean and oil	(Service more frequently if operated in dusty areas)		○		
*CARBURETOR—Check, and adjust if necessary	●			○	
THROTTLE OPERATION—Inspect cable Check, and adjust free play	●			○	
FUEL FILTER SCREEN—Clean				○	
FUEL LINES—Check				○	
*CLUTCH—Check operation, and adjust if necessary	●			○	
DRIVE CHAIN—Check, lubricate, and adjust if necessary	**●	○			

MAINTENANCE SCHEDULE This maintenance schedule is based upon average riding conditions. Machines subjected to severe use, or ridden in unusually dusty areas, require more frequent servicing.	INITIAL SERVICE PERIOD 500 miles	REGULAR SERVICE PERIOD —Perform at every indicated month or mileage interval, whichever occurs first.			
		1 month 500 miles	3 months 1,500 miles	6 months 3,000 miles	12 months 6,000 miles
*BRAKE SHOES—Inspect, and replace if worn				○	
BRAKE CONTROL LINKAGE—Check linkage and adjust free play if necessary	●			○	
*WHEEL RIMS AND SPOKES—Check. Tighten spokes and true wheels, if necessary	●			○	
TIRES—Inspect and check air pressure	●	○			
FRONT FORK OIL—Drain and refill.	***●				○
FRONT AND REAR SUSPENSION—Check operation	●			○	
REAR FORK BUSHING—Grease, check for excessive looseness				○	
*STEERING HEAD BEARINGS—Adjust					○
BATTERY—Check electrolyte level, and add water if necessary	●		○		
LIGHTING EQUIPMENT—Check and adjust if necessary	●	○			
ALL NUTS, BOLTS, AND OTHER FASTENERS—Check security and tighten if necessary	●	○			

Items marked * should be serviced by an authorized Honda dealer, unless the owner has proper tools and is mechanically proficient. Other maintenance items are simple to perform and may be serviced by the owner.

** INITIAL SERVICE PERIOD 200 MILES.

*** INITIAL SERVICE PERIOD 1,500 MILES.

////////////////////// MAINTENANCE OPERATIONS ////////////////////////

Engine Oil Level

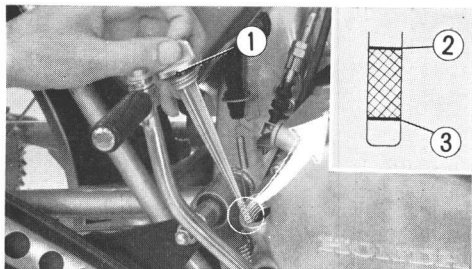
Check engine oil level at the start of each day the motorcycle is to be operated.

The oil filler cap ① is located on the right crankcase cover near the kick starter and contains a dipstick for measuring oil level

Oil level must be maintained between

the upper ② and lower ③ oil level marks on the dipstick.

Oil level must be checked with the motorcycle standing upright on level ground and the oil filler cap touching the filler orifice but not screwed in.



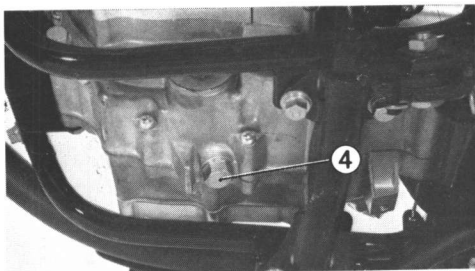
- ① Filler cap dipstick
- ② Upper level mark
- ③ Lower level mark

Engine Oil Change

Engine oil should be changed in accordance with the Maintenance Schedule on page 23. Use only motor oil of the grade and viscosity recommended on page 15.

When changing oil, drain the used oil from the crankcase while the engine is warm. This will ensure complete and rapid draining.

1. Remove the oil filler cap ① from the right crankcase cover.



④ Drain plug

2. Place a drip pan under the engine to catch the oil, and then remove the drain plug ④ with the 17mm wrench.
3. After the oil stops draining from the crankcase, operate the kick starter several times to drain any oil which may be left in the engine.
4. When the oil has been completely drained, reinstall the drain plug making sure that the packing used on this plug is in good condition.
5. Fill the crankcase through the oil filler

opening with approximately 1.0 liter of recommended grade oil. Make sure that the oil level is between the upper ② and lower ③ level marks (page 25).

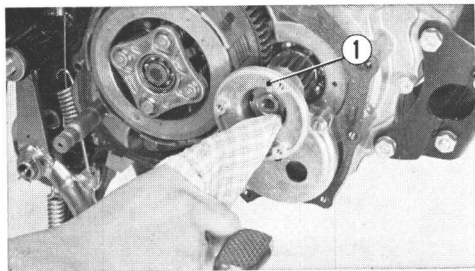
NOTE: When operating the motorcycle under unusual dusty condition, it is recommended that the oil changes be performed at more frequent intervals than that specified in the MAINTENANCE SCHEDULE.

Oil Filter Maintenance

There are two separate oil filters in the SL-125 engine. A screen mesh filter is located in the left side of the crankcase beneath the dynamo housing. A centrifugal oil filter is located inside the engine and is accessible only by removing the right crankcase cover. Both filters should be cleaned once a year.

1. Drain the engine oil (see Engine Oil Change, page 25~26).

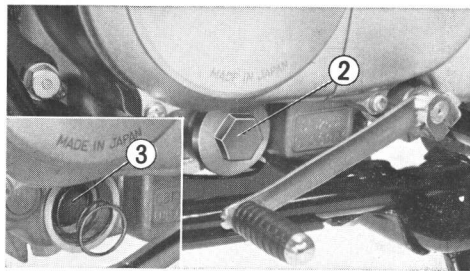
2. Disconnect the lower end of the clutch cable from the clutch lever.
3. Remove the kick starter pedal and step bar.
4. Loosen the right crankcase cover mounting screws and remove the crankcase cover and cover gasket.
5. Loosen the four screws from the oil filter rotor cover, remove the cover and clean any sludge from the center of the filter rotor ①.
6. Reassemble in the proper order all part



① Oil filter rotor

which have been removed. If the crankcase cover gasket is damaged, replace it with a new item.

7. Remove the screen filter for cleaning by unscrewing the filter cap ② located at the bottom of the engine on the left side. Wash the screen filter ③ in solvent or gasoline and then reinstall.
8. Upon completing the servicing of the filters, readjust the clutch by referring to the section on the clutch adjustment on page 37~38.



② Filter cap

③ Screen filter

Spark plug Replacement and Adjustment

An NGK D8ES spark plug is recommended for normal riding conditions.

The spark plug can be removed for cleaning or replacement, using wrench provided in the tool kit.

When the used spark plug is removed, inspect the firing tip. If the electrodes and insulator nose appear unusually fouled or burned, we suggest that you contact your Honda dealer for his analysis of the problem.

A fouled spark plug indicates excessively cold spark plug heat range selection, rich fuel mixture, or excessive oil consumption. A spark plug with burned electrodes and a glazed or blistered insulator nose indicates excessively hot spark plug heat range selection, lean fuel mixture, or excessively advanced ignition timing.

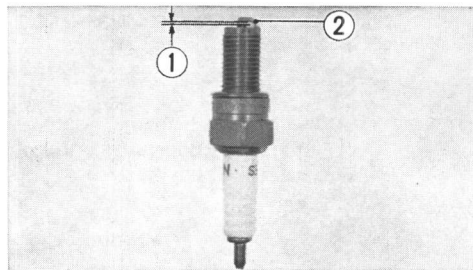
CAUTION: The use of spark plugs of incorrect size or heat range can cause serious engine damage.

Check spark plug gap ① by inserting a

clearance gauge between the electrodes. Adjust the gap to 0.024~0.028 in. (0.6~0.7 mm) by carefully bending the side electrode ②.

Before installing the spark plug, clean any oil or dirt from the spark plug seat in the cylinder head.

Install the spark plug by hand until finger tight. Then use the spark plug wrench to tighten the plug an additional 1/2 to 3/4 turn or until the sealing gasket is compressed.



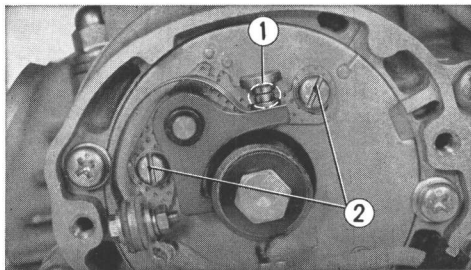
① Spark plug gap 0.024~0.028 in.

② Bend side electrode to adjust gap

Contact Breaker Point Adjustment

1. Remove the point and dynamo covers.
2. Open the contact breaker points ① with your finger or small screw driver blade and examine for pitting. If pitted or burned, the points should be replaced and the condenser checked. A gray discoloration is normal and can be removed with a point file. Filing should be done carefully and kept to a minimum. Clean the point contacts after filing with a clean piece of unwaxed paper such as a business card or chemical point cleaner.
3. Rotate the dynamo rotor in the counterclockwise direction to find the point where the breaker point gap is at maximum and then check the opening using a feeler gauge.
4. The standard gap is **0.012~0.016 in. (0.3~0.4 mm)**.
5. When adjustment is necessary, loosen the contact breaker plate locking screws

② and move the contact breaker plate to achieve correct gap. When properly gapped, retighten the locking screws.



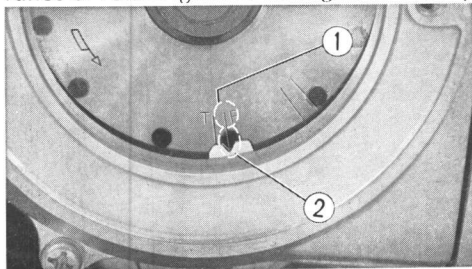
- ① Contact breaker points
② Contact breaker locking screws

Ignition Timing

Ignition timing must be checked after completing the contact breaker point adjustment, as any change in breaker point gap will affect ignition timing.

Rotate the dynamo rotor counterclockwise until the "F" mark ① on the rotor aligns with the index mark ② on the crankcase cover. When the timing marks align, the contact breaker points should just begin to open.

If ignition timing is found to be incorrect, loosen the two base plate locking screws ③ and reposition the base plate ④ to advance or retard ignition timing as necessary.



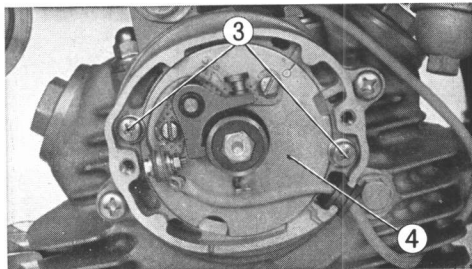
- ① "F" mark
- ② Index mark

Rotate the base plate clockwise to advance ignition timing.

Rotate the base plate counterclockwise to retard ignition timing

Tighten the base plate locking screws and recheck the contact breaker point gap (see page 29) to be certain the gap has not changed.

Static timing is relatively accurate and will give satisfactory engine performance. However, the use of a stroboscopic timing light will assure more precise timing. When using a stroboscopic timing light, idle the engine at 1200 R.P.M.



- ③ Base plate locking screws
- ④ Contact breaker base plate

Valve Tappet Adjustment

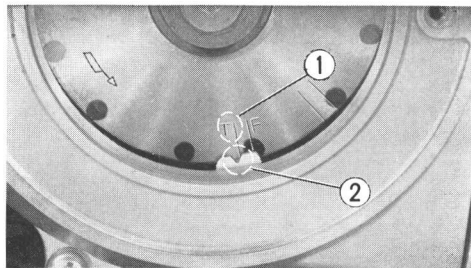
Excessive valve tappet clearance will cause tappet noise, and little or no clearance will cause valve damage and loss of power. Therefore, the valve tappet clearance should be maintained properly.

The valve tappet clearance must be checked when the engine is cold.

1. Remove the dynamo cover and tappet adjusting hole caps.
2. Rotate the dynamo rotor counterclockwise until the "T" mark ① on the dynamo rotor lines up with the index mark ② on the cover. In this position,

the piston may either be on the compression or the exhaust stroke. The adjustment must be made when the piston is on top of the compression stroke when both the inlet and exhaust valves are closed.

This condition can be determined by shifting the tappets with fingers through the tappet adjusting holes. If the tap-



① "T" mark

② Index mark

pets are free, it is an indication that the valves are closed and that the piston is on the compression stroke. If the tappets are tight and the valves are open, rotate the dynamo rotor 360° and realign the "T" mark to the timing index mark. Check the clearance of both valves by inserting the **0.002 in. (0.05 mm)** feeler gauge between the adjusting screw and the valve stem.

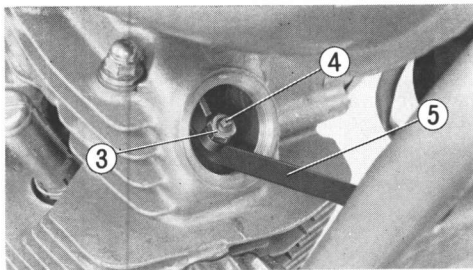
If it is necessary to make an adjustment, loosen the adjusting screw lock nut ③ and turn the adjusting screw ④ so that the valve clearance will offer a slight resistance when the feeler gauge ⑤ is inserted. After completing the adjustment, tighten the adjusting screw lock nut while holding the adjusting screw to prevent it from turning. Finally, recheck the clearance to make sure that the adjustment has not been disturbed.

Cam Chain Adjustment

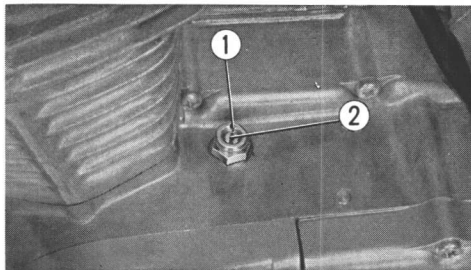
Valve timing will be slightly off and cause poor engine operation if the cam chain is slack. Follow the procedure below to adjust the chain.

Operate the engine at idle speed, and listen for any chain noise. A loose chain can be identified by a rustling or metallic clashing noise.

Perform the adjustment by loosening the cam chain adjuster lock nut ①, unscrew (turn counterclockwise) the adjuster ② gradually until the noises vanish, and tighten the lock nut at this point.



③ Adjusting screw lock nut ⑤ Feeler gauge
④ Adjuster screw

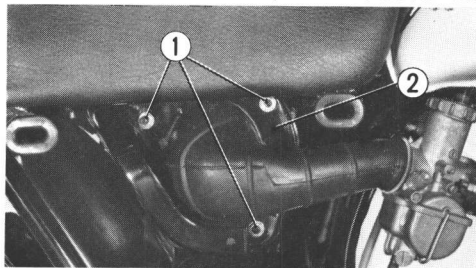


① Cam chain adjuster lock nut
② Cam chain adjuster

Air Cleaner Maintenance

The air filter element accumulates dust and must be cleaned periodically. If the motorcycle is ridden in unusually dusty areas, the filter element will require more frequent cleaning than specified in the Maintenance Schedule.

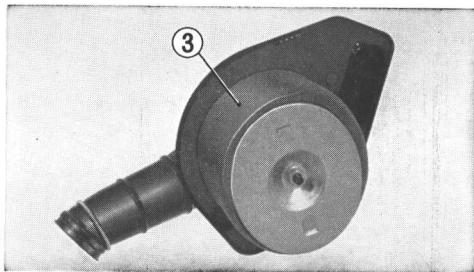
1. Remove the right side cover from the motorcycle.
2. Unscrew the three air cleaner mounting nuts ①, disconnect the air cleaner tube from the carburetor, and remove the



① Air cleaner mounting nuts
② Air cleaner

air cleaner ② from its case.

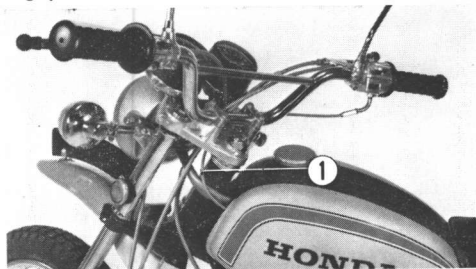
3. Remove the filter element ③ from the air cleaner, wash air filter element in clean stoddard solvent and allow to dry thoroughly.
4. Soak air filter element in clean gear oil (#80~#90) until saturated, then squeeze out excess oil.
5. Reassemble and install the air cleaner.
6. Install the right side cover.



③ Air cleaner element

Throttle Cable Inspection

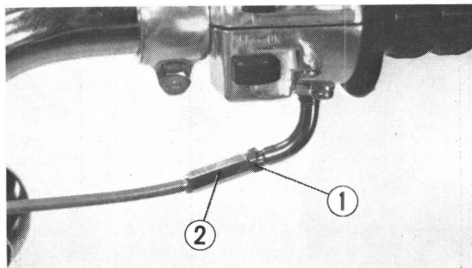
Check for smooth rotation of the throttle grip from the full open to the full close positions. Check both when at full left and full right steering positions. Inspect the condition of throttle cable from the throttle grip down to the carburetor. If the cable is kinked, chafed or improperly routed, it should be replaced and/or re-routed. Recheck cable for tension or stress at both full left and full right steering positions.



① Throttle cable

Throttle Cable Adjustment

Standard throttle grip free play is approximately $10\sim15^\circ$ of the grip rotation. This free play can be attained by adjustment of the throttle cable adjuster ②. Loosen the lock nut ① and turn the adjuster until the grip free play rotation becomes $10\sim15^\circ$.



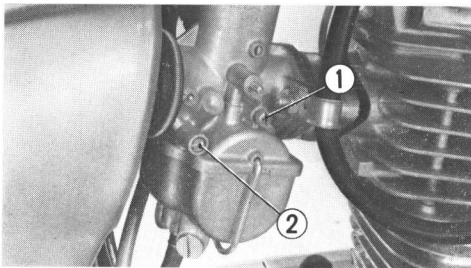
① Lock nut
② Throttle cable adjuster

Carburetor Adjustment

The carburetor should be adjusted only after the engine has attained operating temperature.

1. Adjust the idle speed screw ① until the engine idles at approximately 1,200 R.P.M. Turn the idle speed screw clockwise to increase idle speed or counterclockwise to decrease idle speed.
2. Turn the air screw ② clockwise until you hear the engine miss or decrease in speed, then counterclockwise until the engine again misses or decreases in speed. Set the air screw exactly between these two extreme positions. Turning the air screw clockwise creates a richer fuel mixture, while turning the air screw counterclockwise creates a leaner fuel mixture. Usually the correct setting (between extremes of richness and leanness) will be found to be $1\frac{1}{2} \sim 1\frac{3}{4}$ turns open from a fully closed position.

3. If idle speed changes after adjusting fuel mixture, readjust the idle speed screw.



- ① Idle speed screw
② Air screw

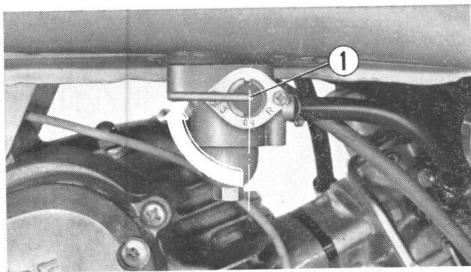
Fuel Filter Maintenance

The fuel filter is incorporated in the fuel valve ① which is mounted on the bottom of the fuel tank at the left side. Accumulation of dirt in the filter will restrict the flow of the fuel and cause the carburetor to malfunction, therefore, the fuel filter should be serviced periodically.

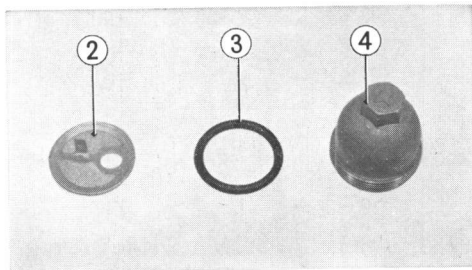
1. Turn the fuel valve ① to the "S" position.
2. Unscrew the fuel filter cap ④. Wipe

all sediment from the inside of the cap.

3. Remove the "O" ring seal ③ and the filter screen ②.
4. Wash the filter screen in solvent or gasoline.
5. Reinstall the filter screen, "O" ring, and cap.
6. Turn the fuel valve to the "ON" position and check for leakage at the filter cap.



① Fuel valve



② Filter screen

③ "O" ring seal

④ Filter cap

Clutch Adjustment

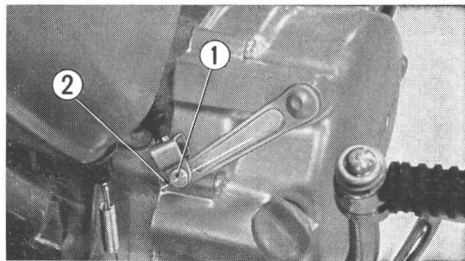
When the clutch linkage and cable are properly adjusted, operation of the clutch hand lever will completely engage and disengage the clutch. Absence of free play will prevent full engagement and cause the clutch to slip. Excessive free play will prevent full disengagement and cause the clutch to drag.

1. Check the position of the clutch lever for proper setting. The center of the clutch cable connecting pin ① should be in alignment with the lower part of the index mark ② located on the side of the crankcase.

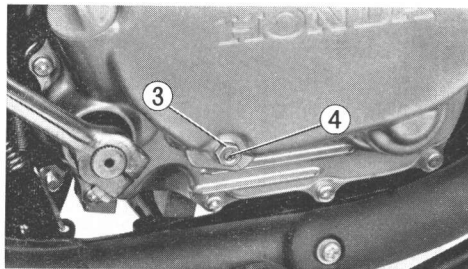
If the adjustment is necessary, loosen the clutch adjuster lock nut ③ located at the bottom of the right crankcase cover and turn the clutch adjuster ④ with a screwdriver.

Turning the adjuster clockwise will cause the clutch lever to move upward.

2. The clutch lever is adjusted properly



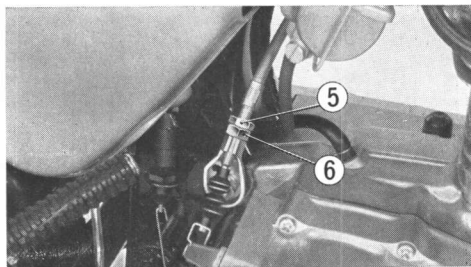
① Clutch cable connecting pin
② Index mark



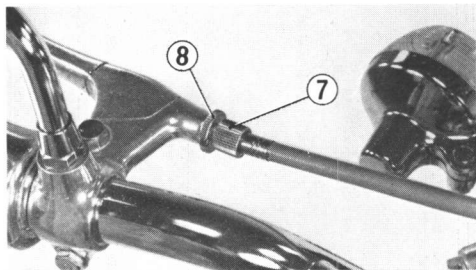
③ Clutch adjuster lock nut
④ Clutch adjuster

when the clutch lever free movement, measured at the end of the lever, is **0.4~0.8 in. (10~20 mm)**. If adjustment is necessary, loosen the lock nut ⑤ on the clutch cable lower adjuster ⑥ and make the adjustment with the adjuster. Turning the adjuster clockwise will increase the free movement of the clutch lever.

3. The adjustment can also be made in the same manner at the clutch cable upper adjuster ⑦.
4. After adjustment, test ride the motorcycle to be certain the clutch operates properly, without slip or drag.



⑤ Lock nut
⑥ Clutch cable lower adjuster



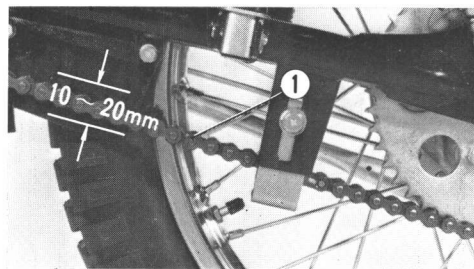
⑦ Clutch cable upper adjuster
⑧ Lock nut

Drive Chain Maintenance

Proper tensioning and lubrication will help to extend the service life of the drive chain and ensure smooth power transmission to the rear wheel. Under average usage, the drive chain should be lubricated, and tension checked, every month. Under severe usage, or when the motorcycle is ridden in unusually dusty areas, more frequent maintenance is necessary.

Tension Adjustment:

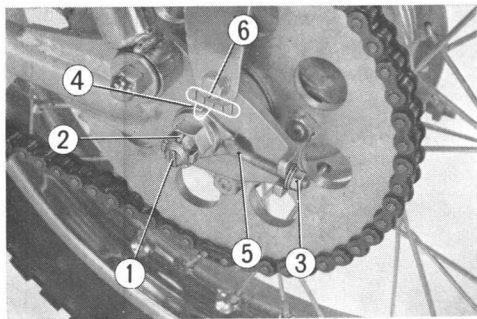
1. Place the motorcycle on a support block to raise the rear wheel off the ground. Shift the transmission into neutral.
2. Check vertical movement of the lower length of the drive chain at a point midway between the sprockets. Move the chain up and down with your fingers and observe the amount of slack. Drive chain tension should be adjusted to allow approximately 10~20mm vertical movement at this point. Rotate the rear wheel and check drive



① Drive chain

chain tension throughout its length. Drive chain tension should remain constant as the wheel is rotated.

If the chain is found to be slack in one segment of its length and taut in another, this indicates that some of the links are either worn or kinked and binding. Kinking and binding can frequently be eliminated by lubrication. Worn or damaged drive chain must be replaced.



- | | |
|-----------------|-----------------------|
| ① Cotter pin | ④ Adjuster index mark |
| ② Rear axle nut | ⑤ Chain adjuster |
| ③ Adjusting nut | ⑥ Rear fork scale |

3. If the drive chain is found to require adjustment, the procedure is as follows:
 - A. Remove the rear axle nut cotter pin ① and loosen the rear axle nut ②.
 - B. Turn the adjusting nut ③ on both the right and left chain adjusters ⑤ to increase or decrease chain tension. Align the chain adjuster index marks ④ to corresponding scale ⑥ graduations on both sides of the rear fork.

- C. Tighten the rear axle nut and secure the nut with the cotter pin (replace the cotter pin if it has become broken or damaged).

Tighten the adjusting nuts.

- D. Recheck drive chain tension.
- E. Rear brake pedal free travel is affected when repositioning the rear wheel to adjust drive chain tension. Check rear brake pedal free travel and adjust as necessary (see page 43)

Lubrication:

Commercially prepared drive chain lubricants may be purchased at most motorcycle shops and should be used in preference to motor oil or other lubricants.

Saturate each chain link joint so that the lubricant will penetrate the space between adjacent surfaces of link plates and rollers.

Removal and Cleaning:

When the drive chain becomes extremely dirty, it should be removed and cleaned

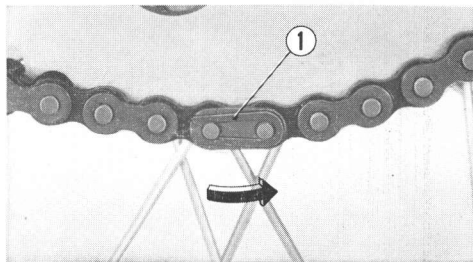
prior to lubrication.

1. Carefully remove the master link retaining clip with pliers. Do not bend or twist the clip. Remove the master link. Remove the drive chain from the motor-cycle.
2. Clean the drive chain in solvent or gasoline and allow to dry. Inspect the drive chain for possible wear or damage. Replace any chain that has damaged rollers, loose fitting links, or otherwise appears unserviceable.
3. Inspect the sprocket teeth for possible wear or damage. Replace if necessary. Never use a new drive chain on badly worn drive chain on new sprockets. Both chain and sprockets must be in good condition, or the new replacement chain or sprocket will wear rapidly.
4. Lubricate the drive chain (see page 40).
5. Pass the chain over the sprockets and

join the ends of the chain with the master link. For ease of assembly, hold the chain ends against adjacent rear sprocket teeth while inserting the master link

Install the master link retaining clip ① so that the closed end of the clip will face the direction of forward wheel rotation.

The master link is the most critical part affecting the security of the drive chain. Master links are reusable, if they remain



① Retaining clip

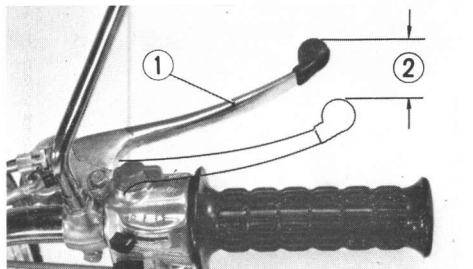
in excellent condition, but it is recommended that a new master link be installed whenever the drive chain is reassembled.

6. Adjust the drive chain to the proper tension, following the instructions on page 39~40.

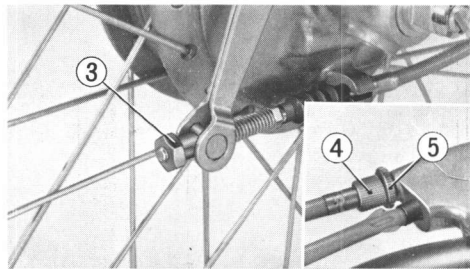
Front Brake Adjustment

Free play measured at the tip of the front brake lever ① should be maintained at 0.8~1.2 in. (20~30 mm). Each end of the

brake cable is provided with an adjuster. Major adjustments should be made using the adjuster located on the brake arm at the front wheel hub. Turn the adjusting nut ② clockwise to decrease free play or counterclockwise to increase free play. Minor adjustments can be made in a similar manner using the adjuster located on the brake lever mount at the handlebar. Loosen the lock nut ④, turn the adjuster ③ to obtain the specified free play, and retighten the lock nut.



- ① Front brake lever
② Free play



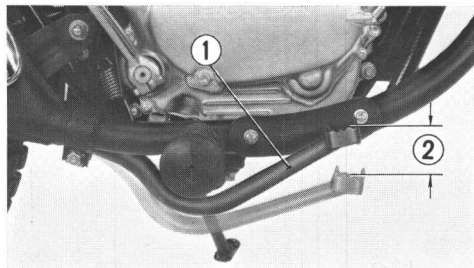
- ③ Front brake adjusting nut
④ Front brake cable adjuster
⑤ Lock nut

Rear Brake Adjustment

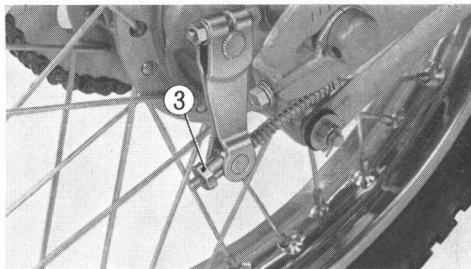
Free play measured at the tip of the rear brake pedal ① should be maintained at 0.8~1.2 in. (20~30 mm).

The adjuster is located on the brake arm

at the rear wheel hub. Turn the adjusting nut ② clockwise to decrease free play or counterclockwise to increase free play.



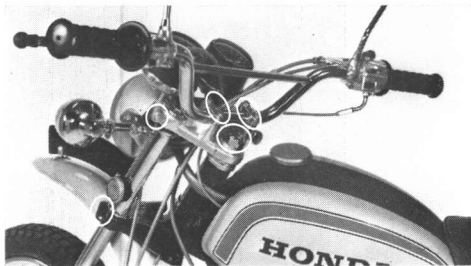
- ① Rear brake pedal
- ② Free play



- ③ Rear brake adjusting nut

Front Suspension Inspection

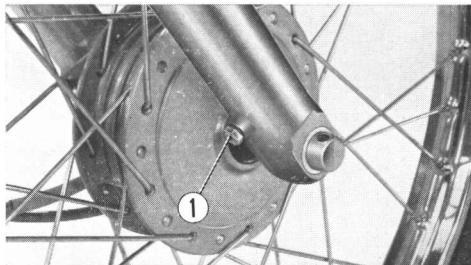
Check front fork action by locking the front brake and pumping the forks up and down several times. The suspension should function smoothly, with no oil leakage from the fork legs. Damaged, binding, or leaking front forks should be repaired before the motorcycle is operated further. Check security of all front fork and handlebar mounting bolts



Front Fork Oil Change

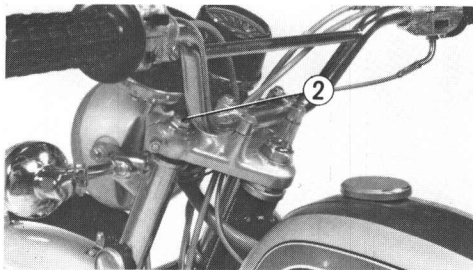
Oil in both front fork legs should be changed at least once a year.

1. Remove the filler plugs ② (page 45) and drain plugs ① from each front fork, and allow the oil to drain. Pump the forks several times to ensure complete draining. Reinstall the drain plugs.



① Front fork drain plug

2. Refill each fork leg with 4.9~5.3 ozs. (145~155 cc) of quality ATF and reinstall the filler plugs.

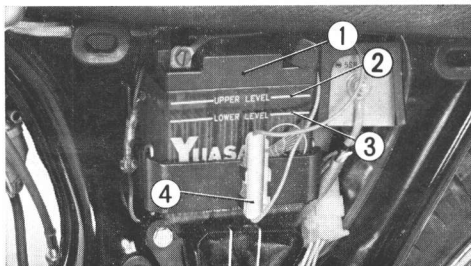


② Filler plug

Battery Maintenance

The battery is mounted in the center of the frame, on the left side, below the seat, and is accessible by removing the left side cover from the motorcycle. The side cover is retained by tabs which clip into the frame.

Battery electrolyte level should be checked once a month. The electrolyte level must be maintained between the upper ② and lower ③ marks on the side of the battery. This check must be performed with the motorcycle standing upright on level ground.



① Battery

② Upper level mark

③ Lower level mark

④ Fuse

If the electrolyte level is found to be low, it will be necessary to remove the battery from the frame for access to the battery filler caps. Disconnect the electrical leads from the battery, remove the battery mounting strap, and remove the battery. Remove the battery filler caps and carefully add distilled water until the electrolyte level in each cell is between the upper and lower marks. Use a small syringe or plastic funnel to add water. Only distilled water should be added, to avoid contaminating the electrolyte.

When reinstalling the battery, route the battery vent tube behind the battery and downward through the retaining clip located on the rear fender panel below the battery. Do not kink or pinch the vent tube, or battery damage may result.

If it becomes necessary to store the motorcycle for a long period of time, such as during the winter months, remove the battery and store it indoors. To prevent deterioration while in storage, the battery should be recharged every few weeks, or

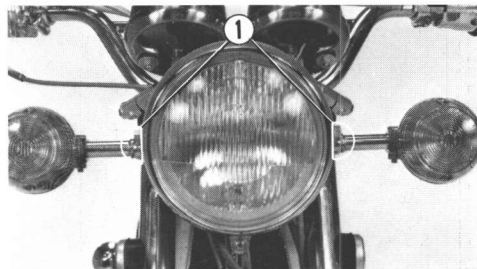
when the specific gravity of the electrolyte falls below 1.200. Use only battery chargers regulated to deliver a charging rate not exceeding 0.6 amperes.

Headlight Beam Adjustment

The headlight must be kept properly adjusted for safe nighttime riding.

Vertical adjustment is made by pivoting the headlight case on its mounting bolts

①.



① Headlight mounting bolts

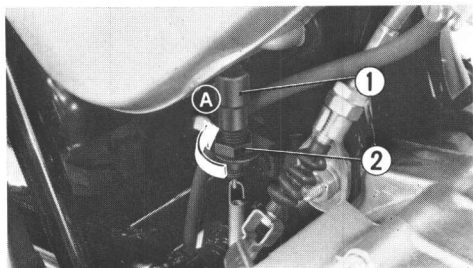
Stoplight Switch Adjustment

The stoplight switch ① must be adjusted so that the stoplight will come on when the rear brake is applied. Rear brake free play (see page 43) should be adjusted before performing the stoplight switch adjustment. The procedure for adjusting the stoplight switch is as follows:

1. Turn the main switch to the "ON" position.
2. Turn the adjusting nut ② to position

the stoplight switch at a point where the stoplight will come on slightly before the brake pedal is depressed to the limit of its free travel.

Turn the adjusting nut in direction ④ to advance switch timing or in the opposite direction to retard the switch.



- ① Stoplight switch
- ② Adjusting nut

////////////////////// SPECIFICATIONS ////////////////////////

ITEM	
DIMENSIONS Overall length Overall width Overall height Wheel base	1,965 mm (77.4 in.) 810 mm (31.9 in.) 1,110 mm (43.7 in.) 1,260 mm (49.6 in.)
WEIGHT Dry weight	98 kg (216 lbs)
CAPACITIES Engine oil Fuel tank Fuel reserve tank	1.0ℓ (1.0 US qt., 0.9 Imp. qt.) 7.0ℓ (1.8 US gal., 1.5 Imp. gal.) 1.5ℓ (0.4 US gal., 0.3 Imp. gal.)
ENGINE Bore and stroke	56 × 49.5 mm (2.205 × 1.949 in.)

Compression ratio Displacement Contact breaker point gap Spark plug gap Valve tappet clearance	9.5 122 cc (7.44 cu-in.) 0.3~0.4 mm (0.012~0.016 in.) 0.6~0.7 mm (0.024~0.028 in.) 0.05 mm (0.002 in.)
CHASSIS AND SUSPENSION Caster Trail Tire size, front Tire size, rear	61° 110 mm (4.3 in.) 2.75-21 (4PR) 3.25-18 (4PR)
POWER TRANSMISSION Primary reduction Final reduction Gear ratio, 1st. 2nd. 3rd. 4th. 5th.	4.055 3.066 2.769 1.722 1.272 1.000 0.851

ELECTRICAL Battery Generator Fuse	6V-6 AH A. C. Generator, 0.0535 kW/10,000 rpm. 15 amp
LIGHTS Headlight Tail/Stoplight Turn signal light Meter light Neutral indicator light High beam indicator light	(U. K. type) 6V-35/35 W 6V-5/21 W 6V-18 W 6V-1.5 W 6V-1.5 W 6V-1.5 W

MEMO

MEMO

SL 125 WIRING DIAGRAM (GENERAL TYPE)

