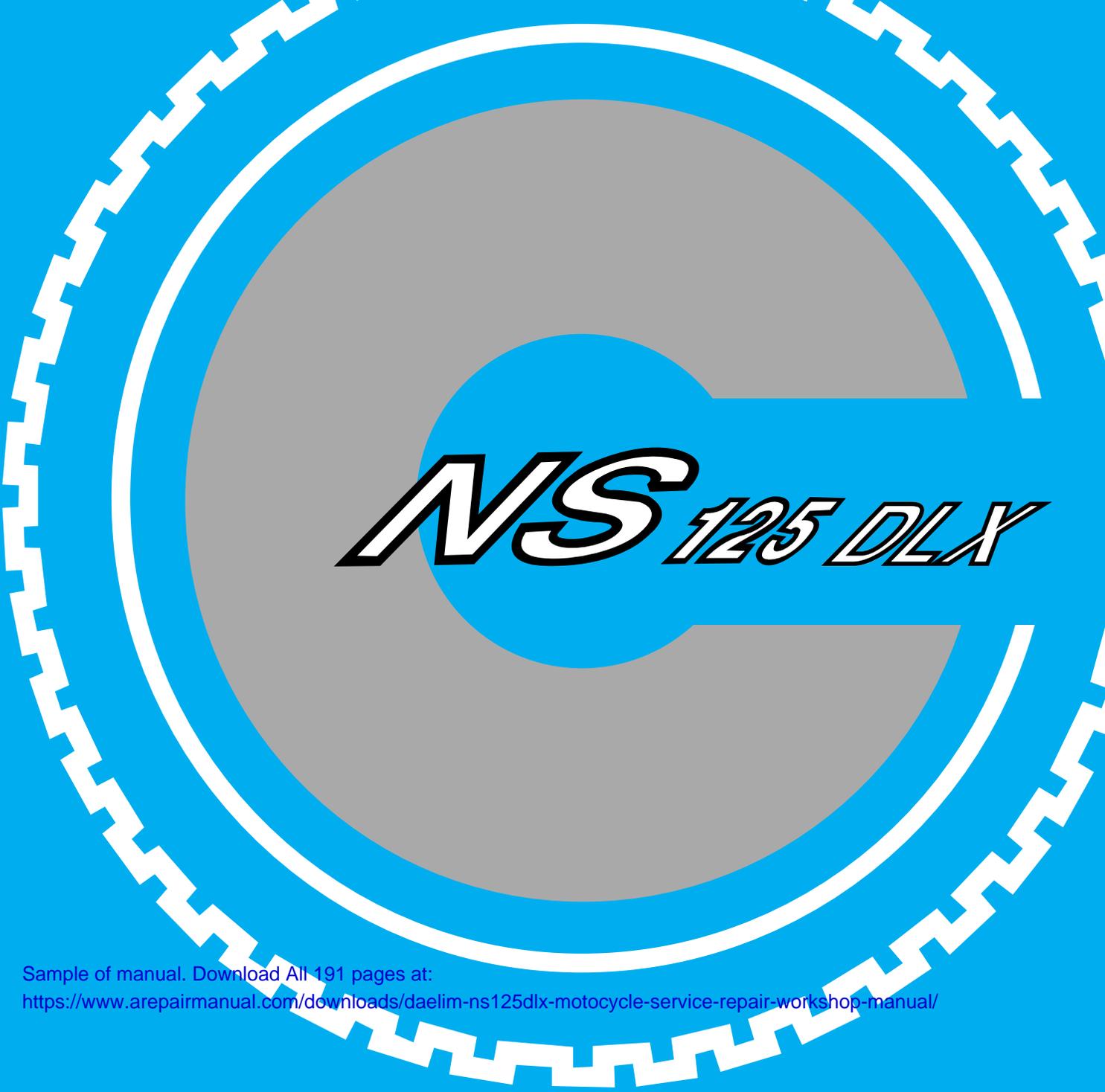


SERVICE MANUAL

A large, stylized graphic of a gear or sprocket, rendered in white and light blue, centered on the page. The gear has a thick white outline and a light blue fill. The text 'NS 125 DLX' is superimposed on the gear.

NS 125 DLX

How to use this manual

This manual describes effective maintenance procedure for the NS125DLX manufactured by DAELIM Motor Co., Ltd.

To ensure safety and optimal operating conditions of the vehicle, carry out regular inspections according to the maintenance schedule(Section 3).

Sections 1 through 3 provide information on overall vehicle; section 4, assembly and disassembly procedures for external components, and section 5 describes maintenance procedure for the engine, frame and electrical systems.

To facilitate use of this manual, each page starts with disassembly and system diagrams, service information, and troubleshooting guide. If you cannot find the cause of trouble, refer to Section 20: Troubleshooting.

- Contents of this manual and specifications are subject to change without prior notice for improvement of vehicle quality.
- No part of this publication may be reproduced without written permission of DAELIM Motor Co., Ltd..

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1. Service Information

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General Safety

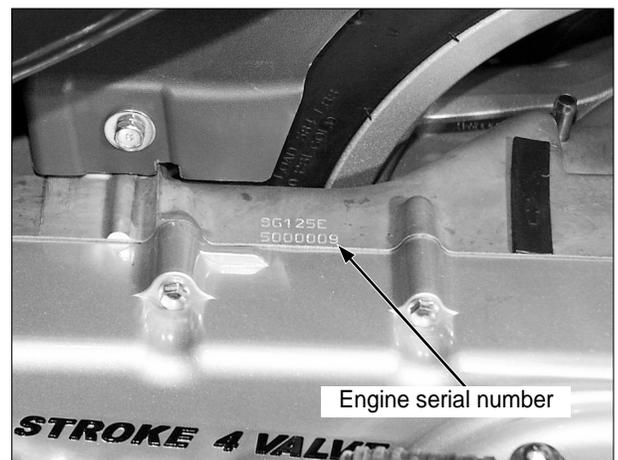
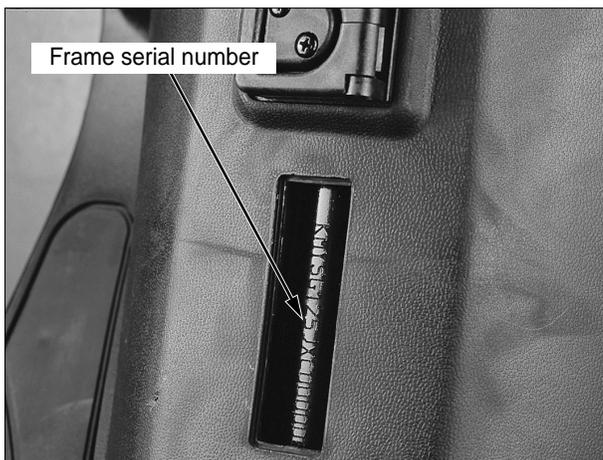
WARNING

1. The Exhaust gas contains poisonous substance. Do not keep engine idling in a closed or poorly ventilated place for a long period of time.
2. The battery acid (sulfuric acid) is poisonous, and contact with skin or eyes may cause severe burns or loss of sight. If the acid gets on your skin, flush with large amount of water, and consult a physician. If your clothing makes contact with the acid, wash in water and avoid your skin from making direct contact with the battery acid. Store battery and the battery acid in a safe place. Keep out of reach of children.
3. The dust accumulated in the brake drum contains carcinogenic substance. If you clean the brake drum with an air hose, dust may be blown and dispersed into air, and inhaled. Use brake cleaner or other appropriate method to minimize hazard caused by airborne dust.
4. Gasoline is extremely flammable. Never allow fire in the working area. Take particular precautions not only for general flames but also electric sparks. Furthermore, evaporated (gasified) gasoline is highly explosive. Work in a well-ventilated area.
5. Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. It is desirable not to handle used oil frequently; however, wash your hands thoroughly with soap and water immediately after handling the used oil.

Removal/Installation Safety

1. Use only the genuine Daelim or Daelim-recommended parts and lubricants.
2. Use the special tools designed for this product.
3. Install new gaskets, O-rings, piston pins, clips, cotter pins (split pins), etc. when reassembling them.
4. When tightening bolts, nuts or screws, temporarily tighten them first, and tighten diagonally to the specified torque, starting with those having larger diameter to those with smaller diameter, from inner side towards outer side.
5. Use only metric bolts, nuts, and screws. Do not use inch screws.
6. Clean parts prior to inspection after disassembly, and remove cleaning oil with compressed air lubricate sliding parts prior to reassembly.
7. Use recommended grease on designated lubricating points.
8. Upon completion of assembly, check all parts for appropriate tightness and operation.

Identification Numbers



Specifications

Item		Specifications	
Dimensions	Overall length	1,970mm	
	Overall width	700mm	
	Overall height	1,110mm	
	Wheel base	1,350mm	
	Seat height	765mm	
	Ground clearance	130mm	
	Dry weight	110kg	
	Curb weight	240kg	
Frame	Type	Underbone	
	Front suspension/stroke	Telescopic/97mm	
	Rear suspension/stroke	Swing arm/74mm	
	Front tire size/type	120/70-13/Tubeless	
	Rear tire size/type	130/60-13/Tubeless	
	Tire Pressure	1 person	Front Rear
		2 person	Front Rear
			1.75kg/cm ² (175kPa) 2.00kg/cm ² (200kPa) 2.25kg/cm ² (225kPa) 2.25kg/cm ² (225kPa)
	Front brake		Hydraulic disk
	Rear brake		Drum brake
	Fuel tank capacity	Full capacity	7.5 l
		Reserve capacity	1.2 l
Caster angle		25°	
Trail		84.7 mm	
Front fork oil capacity		80cm ³	
Engine	Type	Oil cooled/air cooled 4 cycle SOHC engine	
	Cylinders/Arrangement	1(Single cylinder), front angle 80°	
	Bore and stroke	56 × 50.7 mm	
	Displacement	124.9cm ³	
	Compression ratio	10.8 : 1	
	Valve train	SOHC chain drive	
	Oil capacity	1.1 l After disassembly 0.75 l After Oil change 0.8 l After Oil filter change 0.9 l After Oil change with Oil in the Oil hose removed	
	Lubrication system	Forced pressure splash type	
	Air cleaner type	Wet sump	
	Cylinder compression	13.8kg/cm ²	
	Intake valve:	Open	5° BTDC
		Closed	14° ABDC
	Exhaust valve:	Closed	18° BBDC
		Closed	1° ATDC
	Valve clearance(cooling-off period)	intake	0.12 ± 0.02 mm
	Exhaust	0.12 ± 0.02 mm	

Torque Values

Engine

Item	Q'ty	Thread dia(mm)	Torque value kg.m(N.m,ft-lb)	Remarks
Oil filter cap	1	20	1.5(15, 11)	
Valve adjust screw lock nut	4	5	1.1(11, 8)	
Kick starter pedal bolt	1	6	1.2(12, 8)	
Flywheel bolt	1	12	5.5(55, 40)	Apply engine oil
Drive face bolt	1	12	5.5(55, 40)	
Clutch outer bolt	1	12	5.5(55, 40)	
Cam chain tensioner pivot bolt	1	8	1.0(10, 7)	
Spark plug	1	12	1.2(12, 9)	
Cam sprocket bolt	2	6	1.2(12, 9)	Apply engine oil
Camshaft holder nut	4	8	2.0(20, 14)	Apply engine oil
Cam chain tensioner mounting bolt	2	6	1.2(12, 9)	
Cam chain tensioner sealing screw	1	6	0.4(4, 2.9)	
Cylinder head cover bolt	4	6	1.0(10, 7)	
Transmission cover bolt	8	6	1.2(12, 8)	
Transmission cover drain bolt	1	8	1.0(10, 7)	
Transmission cover check bolt	1	8	0.9(9, 6)	
Cooling fan bolt	3	6	1.0(10, 7)	
Starting clutch nut	1	22	9.5(95, 67)	
Starter motor terminal nut	2	6	0.9(9, 6)	
Radiator hose eye joint bolt	4	12	3.2(32, 23)	
Radiator hose nut	2	14	3.2(32, 23)	

Frame

Item	Q'ty	Thread dia(mm)	Torque value kg.m(N.m,ft-lb)	Remarks
Steering stem lock nut	1	26	7.5(75, 55)	
Steering top thread nut	1	26	0.3(3, 2)	Initial torque
Handle post nut	1	10	6.0(60, 44)	
Front fork bottom bridge bolt	4	10	7.5(75, 55)	
Front fork socket bolt	2	8	2.0(20, 14)	Apply locking agent
Front axle nut	1	12	5.5~6.5(55~65, 40~47)	
Front brake disk bolt	3	8	3.9(39, 28)	Apply locking agent
Ignition coil bolt	1	5	0.5(5, 4)	
Rear axle nut	1	14	6.0-8.0(60-80, 43-58)	
Engine hanger nut	2	10	7.3(73, 53)	
Engine hanger plate bolt	6	10	2.7(27, 20)	

Service Information

Item	Q'ty	Thread dia(mm)	Torque value kg.m(N.m,ft-lb)	Remarks
Brake caliper bracket bolt	2	8	2.7(27, 20)	Apply locking agent
Brake caliper bleeder valve	1	8	0.6(6, 4.3)	
Brake caliper slide pin (socket bolt)	1	8	2.3(23, 17)	
Brake caliper pin bolt	1	8	1.8(18, 13)	
Brake pad pin bolt	2	8	1.8(18, 13)	
Master cylinder reservoir cap	4	4	0.13(1.3, 0.94)	
Brake hose bolt	2	10	3.5(35, 25)	
Brake lever pivot bolt	1	6	1.0(10, 7)	
Brake lever pivot lock nut	1	6	1.0(10, 7)	
Rear shock-absorber upper bolt	1	10	2.7(27, 20)	
Rear shock-absorber lower bolt	1	10	4.0(40, 29)	
Rear shock-absorber damper rod lock nut	2	10	3.8(38, 27)	

Torque values listed above are for specific tightening points. Torque values for other items are listed in the following table.

SH(Small Head): Indicates 6mm bolt of 8mm flange head.

Item	Torque Value			Item	Torque Value		
	N.m	Kg-m	ft-lb		N-.m	Kg-m	ft-lb
5mm bolt, nut	5	0.5	4	5mm screw	4	0.4	3
6mm bolt, nut	10	1.0	7	6mm screw	9	0.9	7
8mm bolt, nut	22	2.2	16	6mm flange bolt, nut	9	0.9	7
10mm bolt, nut	35	3.5	25	6mm flange bolt, nut	12	1.2	9
12mm bolt, nut	55	5.5	40	8mm flange bolt, nut	27	2.7	20
				10mm flange bolt, nut	40	4.0	29

Symbols/Abbreviations

The following symbols are used in this manual to represent job-related warnings or cautions.

Symbol	Meaning	Symbol	Meaning
CAUTION	Indicates dangerous area. Serious accident may result if instructions are not followed.	WARNING	Indicates important work. Minor injury or vehicle part damage may result if instructions are not followed.
		NOTE	Indicates general safety matters. Provides safety and appropriate handling procedures.

The following symbols indicate oil adding, oil change, or parts.

Symbol	Meaning
OIL	Add oil. If there is no specific oil indicated, use the designated or recommended engine oil.
GREASE	Apply grease
(⇒ 3-1)	Indicates reference page.(example: Refer to page 3-1)

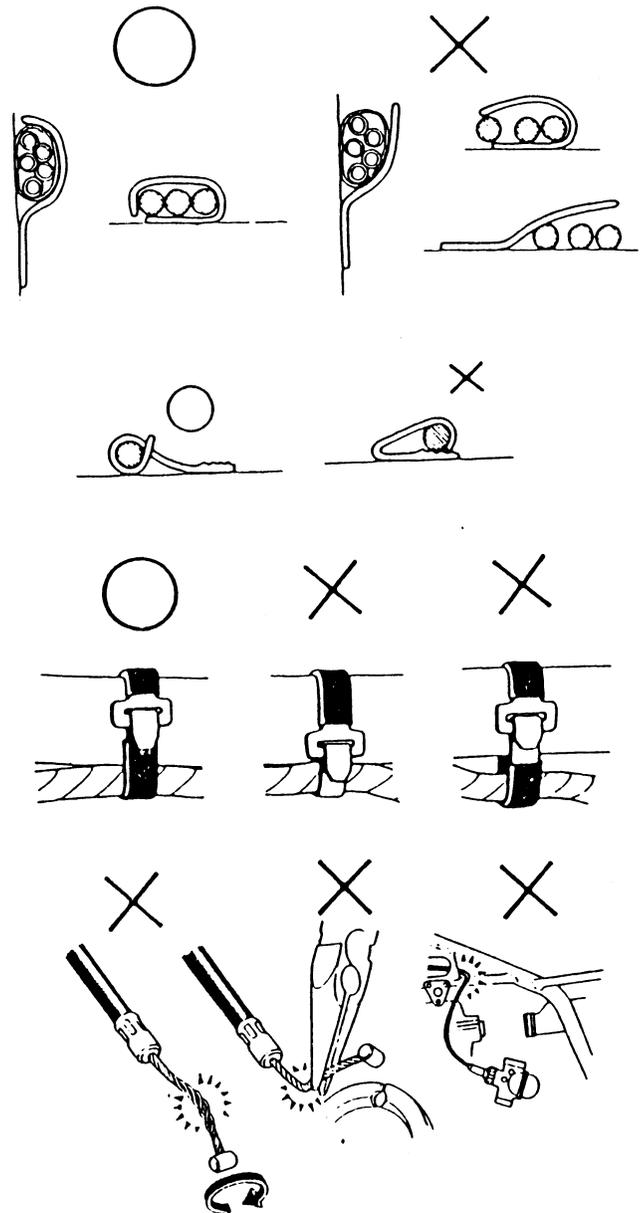
The following abbreviations are used in this manual.

ASS' Y	Assembly
L.	Left
R.	Right

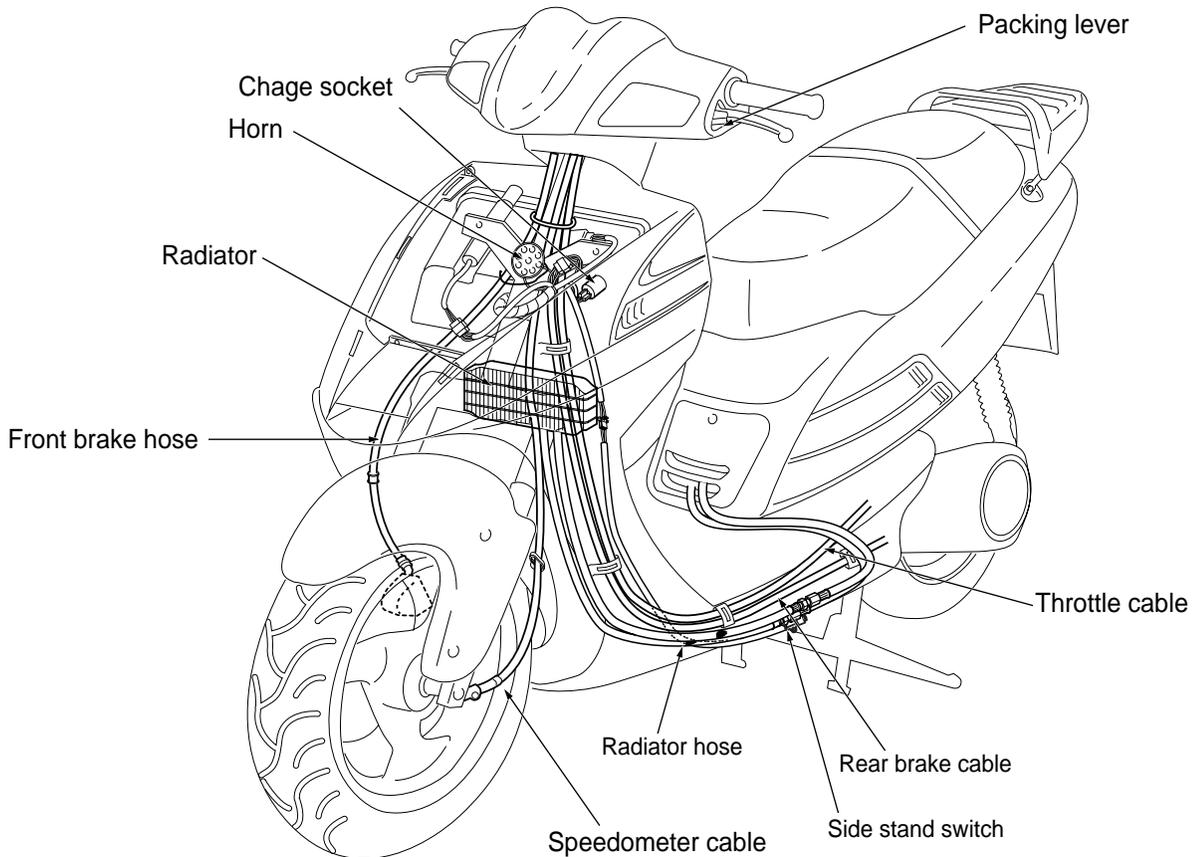
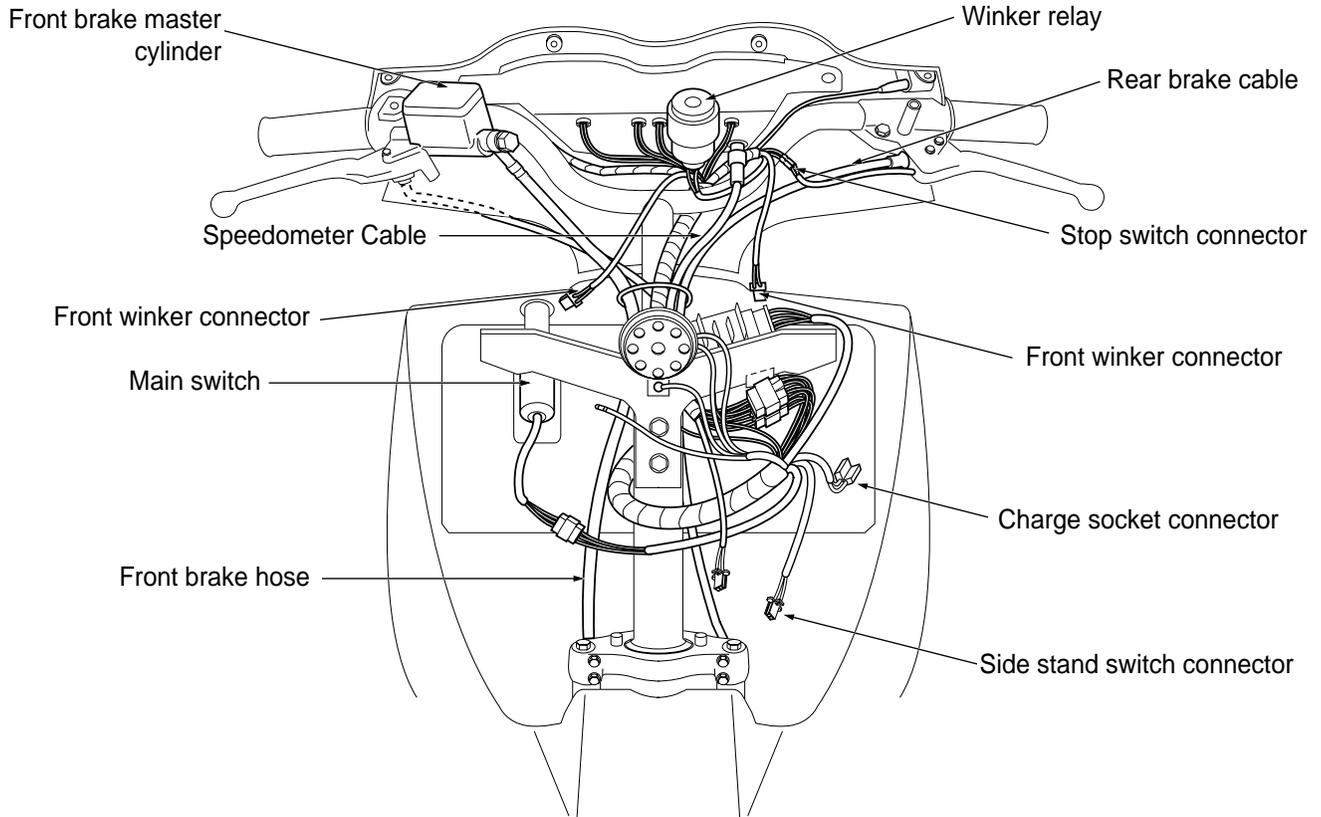
Cable & Harness Routing

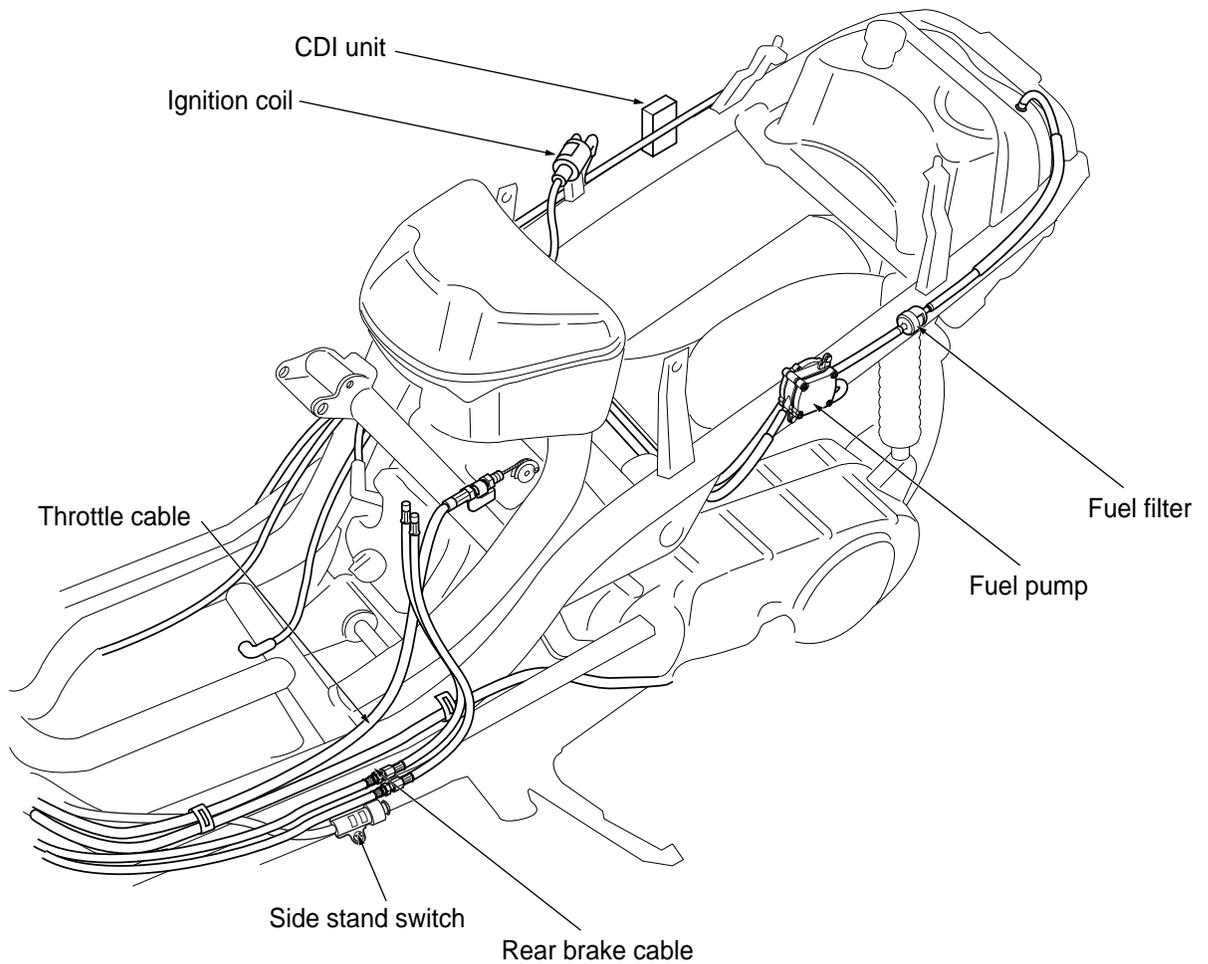
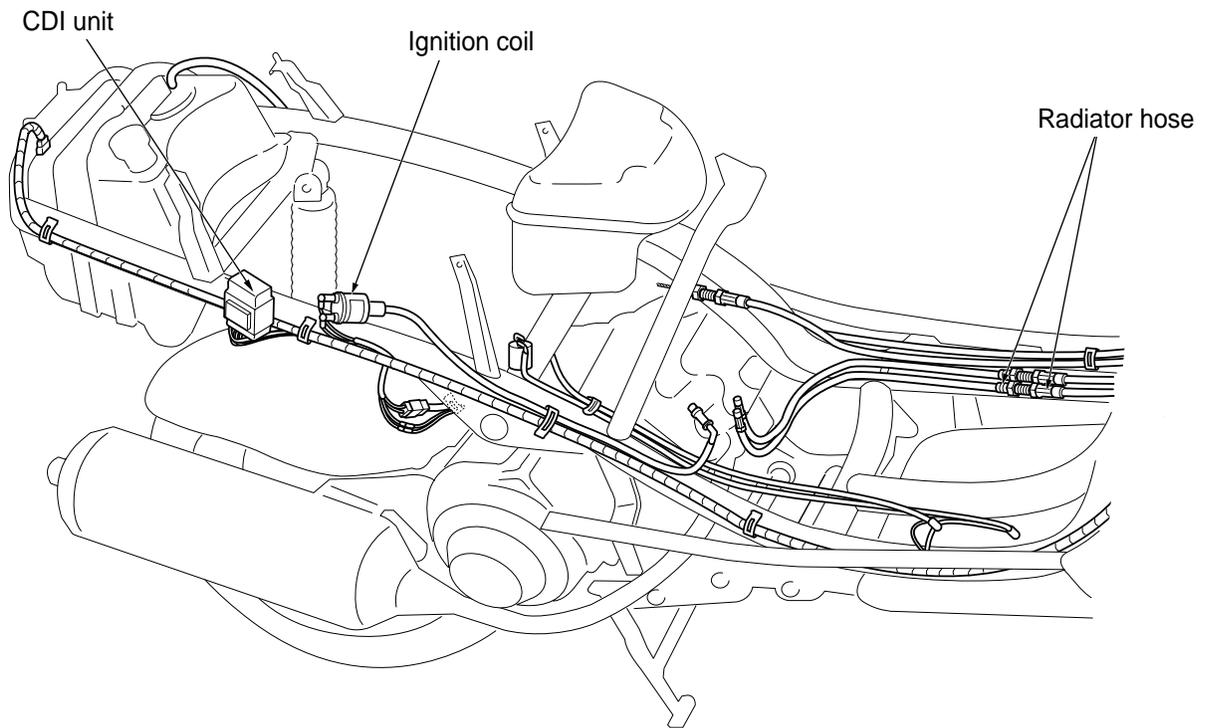
Note the following when routing cables and wire harnesses:

- A loose wire, harness or cable can be safety hazard. After clamping, check each wire to be sure it is secure.
- Do not squeeze wires against the weld or its clamp.
- Secure wires and wire harnesses to the frame with their respective wire bands at the designated locations. Tighten the bands so that only the insulated surfaces contact the wire or wire harnesses.
- Route harnesses so they are neither pulled tight nor have excessive slack.
- Protect wires and harnesses with electrical tape or tube if they contact a sharp edge or corner. Clean the attaching surface thoroughly before applying tape.
- Do not use a wire or harness with a broken insulator. Repair by wrapping them with protective tape or replace them.
- Route wire harnesses to avoid sharp edges or corners.
- Avoid the projected ends of bolts and screws.
- Keep wire harnesses away from the exhaust pipes and other hot parts.
- Be sure grommets are seated in their grooves properly.
- After clamping, check each harness to be certain that it is not interfering with any moving or sliding parts.
- After routing, check that the wire harnesses are not twisted or kinked.
- Wire harnesses routed along the handlebars should not be pulled taut, have excessive slack, be pinched by or interfere with adjacent or surrounding parts in all steering positions.
- Do not twist or band the cable excessively. Distorted or damaged cables may lead to mechanical malfunctions or other damages.



○ : Correct
 × : Incorrect





2. Lubrication

Service information	2-1	Oil Filter Element Change	2-4
Troubleshooting	2-2	Oil Pump	2-4
Engine Oil Level Check	2-3	Radiator	2-7
Engine Oil Change	2-3	Lubrication Points	2-9

Service Information

General Safety

WARNING

1. The exhaust gas contains poisonous substance. Do not keep engine idling in a closed or poorly ventilated place for a long period of time.
2. Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. It is desirable not to handle used oil frequently; however, wash your hands thoroughly with soap and water immediately after handling the used oil.
3. The oil pump can be serviced without removing the engine from the frame.

Engine Oil

Oil capacity	1.1 l (After disassembly) 0.75 l (After Oil change) 0.8 l (After Oil filter change) 0.9 l (After Oil change with Oil in the Oil hose removed)
Oil Recommendation	<p>API service classification: SE, SF, SH grade Viscosity: SAE10W-30 (Use appropriate type of oil with viscosity satisfying the atmospheric temperature in your riding area based on the table shown on the right side.)</p>

Oil Pump

Unit: mm(in)

Item	Standard value	Tolerance
Pump body clearance	0.08 – 0.17(0.003-0.007)	0.23(0.009)
Rotor tip clearance	0.03 – 0.13(0.001-0.005)	0.18(0.007)
Pump side clearance	0.04 – 0.09(0.002-0.004)	0.12(0.005)

Torque Values

Oil filter screen cap	1.5kg – m, (15N.m, 11ft – lb)
Oil filter cover bolt	1.1kg – m, (11N.m, 8ft – lb)
Oil pump mounting bolt	1.1kg – m, (11N.m, 8ft – lb)

Troubleshooting

Oil level too low - high oil consumption

- External oil leaks
- Worn piston rings
- Worn valve guide or seal

Oil contamination

- Oil or filter not changed often enough
- Head gasket faulty
- Worn piston rings

Low oil pressure

- Oil level low
- Pressure relief valve stuck open
- Plugged oil pick-up screen
- Oil pump worn
- External oil leaks

High oil pressure

- Pressure relief valve stuck closed
- Plugged oil filter, gallery, or metering orifice
- Incorrect oil being used

No oil pressure

- Oil level low
- Oil Pump drive gear broken
- Oil pump faulty
- Internal oil leakage

Engine Oil Level Check

- Erect the motorcycle on the main stand.
- Warm up the engine to heat the engine oil to an appropriate level.
- Stop the engine, and check the oil level line on the sight-glass installed on the L. crank case cover.
- If the oil level is between the lower and higher sight-glass oil level line, oil level is satisfactory. If the oil level is below or near the lower level mark, add the recommended engine oil.



Engine Oil Change

NOTE

- To completely and rapidly drain engine oil, warm up engine and erect the motorcycle on its side stand.
- Loosen the oil drain plug bolt and drain engine oil.
- Operate the kick starter arm several times to remove the remaining oil from the engine.
- Tighten the oil drain plug bolt.

Torque value: 2.0-3.0kgf · m

CAUTION

- It is extremely important to replace oil filter or clean the oil filter screen at the first maintenance interval (after 1,000Km).
- Clean the oil filter screen every 4,000Km.
- Clean the filter screen with fresh cleaning oil.
- Check the hole cap O-ring for satisfactory condition.
- Tighten the hole cap with specified tightening torque.

Torque value: 1.5kgf · m

- Loosen the special screw, remove the plug maintenance cover.
- Fill the recommended oil after opening oil filter cap of cylinder head cover.

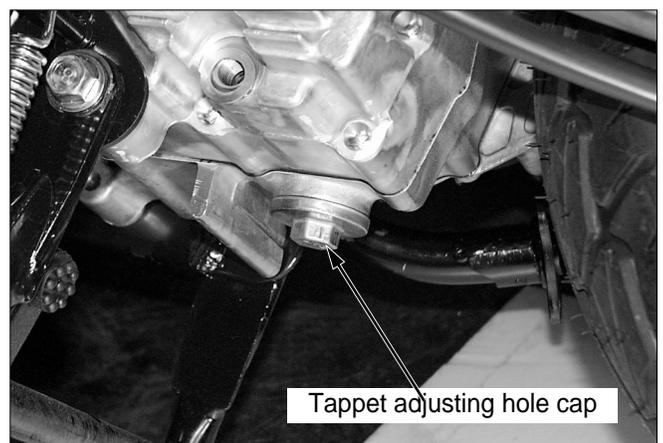
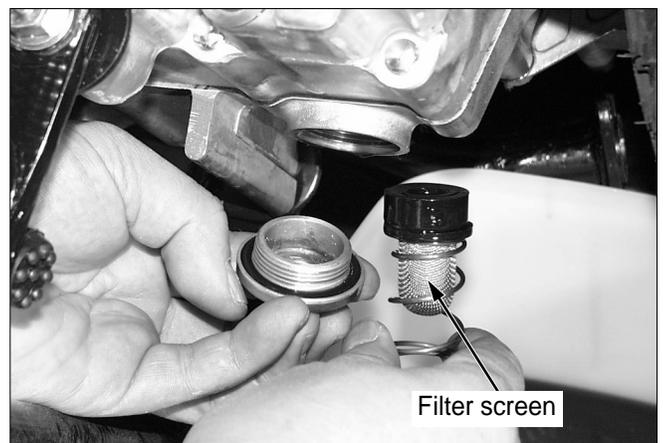
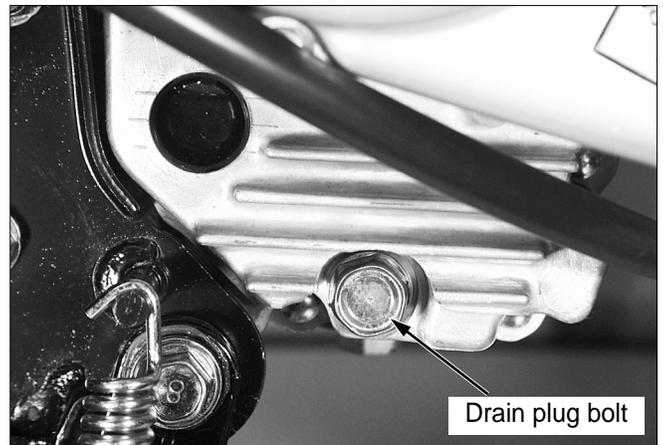
Oil Capacity: 1.1 l (After disassembly)

0.75 l (After Oil change)

0.8 l (After Oil filter change)

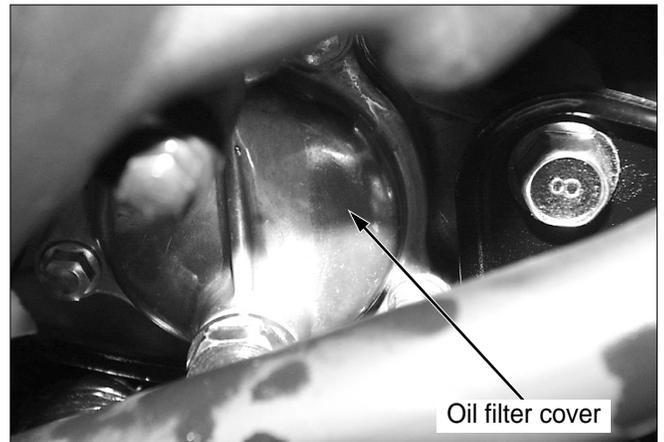
0.9 l (After Oil change with Oil in the Oil hose removed)

- API service classification: SE, SF, SH grade
- Start the engine and keep it idle for a few minutes.
- Stop the engine and check the oil level. If the oil level is low, add the recommended engine oil.
- Check on oil leaks.



Oil Filter Element Change

- Drain engine oil. (⇒ 2-3)
- Remove the oil filter cover bolts, filter cover, filter element and spring.



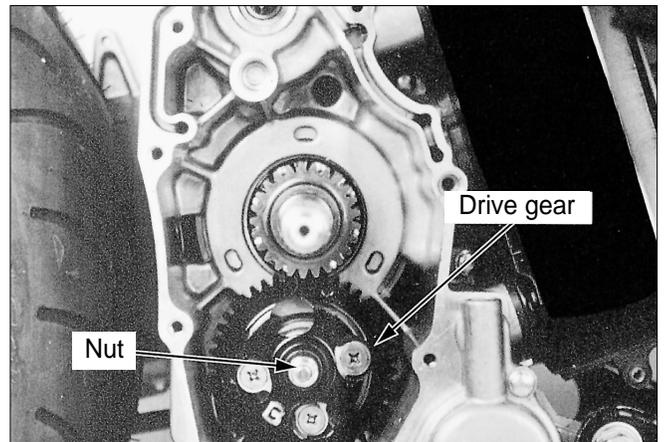
- Change the oil filter element with a new one.
- Check the relief valve inside the oil filter cover for satisfactory operation.
- Check if the oil filter seal is in good condition.
- Assemble the filter element spring and filter cover, and tighten bolts.

Torque value: Oil filter cover 1.1kg-m(11N.m.8ft-lb)

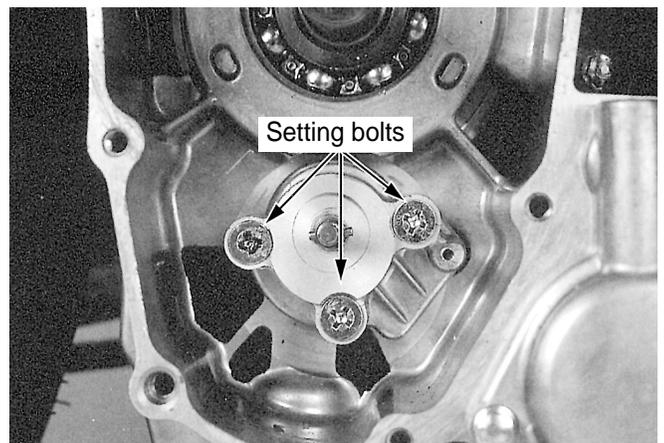


Oil Pump

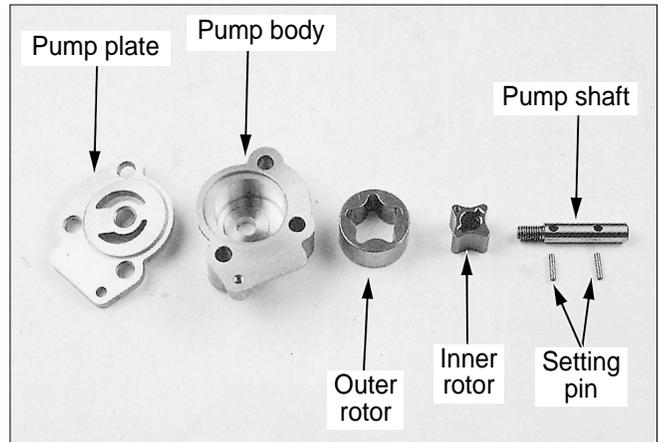
- Remove the following parts:
 - Luggage box (⇒ 4-5)
 - Rear cushion bolt(⇒ 6-2)
 - RH. floor side cover(⇒ 4-5)
 - Exhaust muffler(⇒ 4-9)
 - Center cover (⇒ 4-4)
 - Shroud (⇒ 8-2)
 - Cooling fan(⇒ 8-2)
 - R. Crank cover (⇒ 8-4)
 - A.C. generator (⇒ 8-2)
 - Starter driven gear and reduction gear (⇒ 8-5)
 - Starter clutch (⇒ 8-6)
- Loosen the oil pump drive gear setting nuts.



- Remove the oil pump drive gear.
- Remove the oil pump driven gear.



- Remove the oil pump.
- Clean the oil pump body, inner and outer rotors with fresh cleaning oil.



Inspection

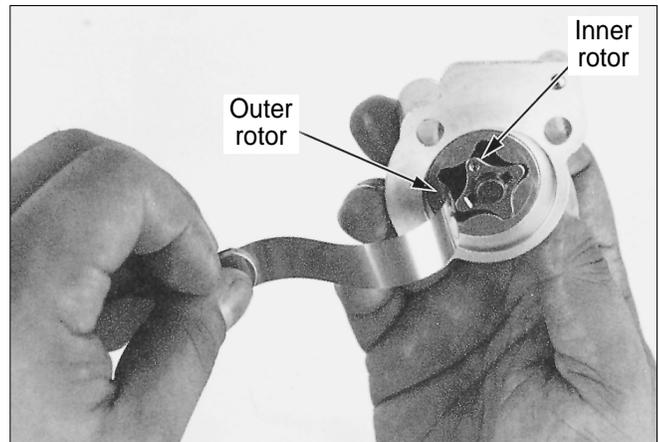
- Assemble the inner and outer rotors to the oil pump
- Measure the pump body clearance.

Service limit: 0.23mm (0.009in)



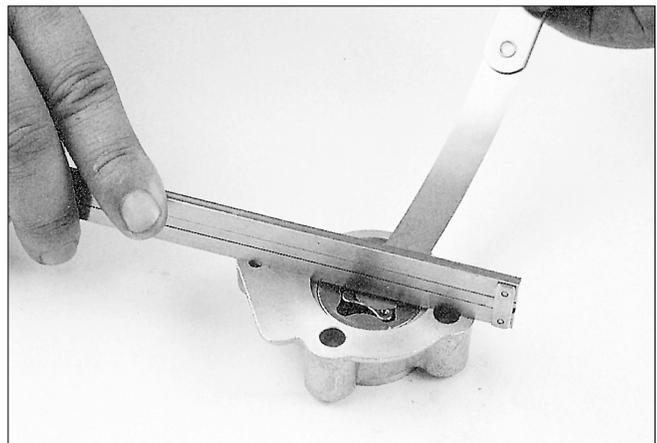
- Measure the rotor tip clearance.

Service limit: 0.18mm (0.007in)



- Measure the pump side clearance.

Service limit: 0.12mm (0.005in)



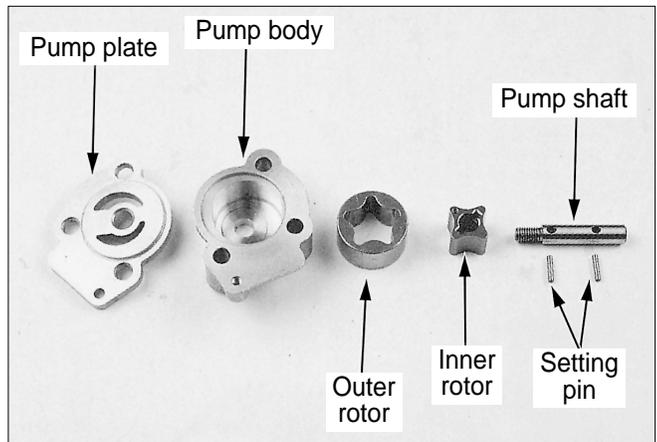
Lubrication

Removal/Installation

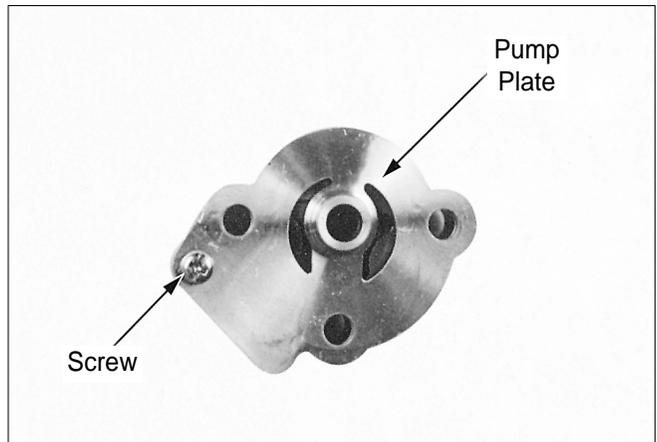
- Remove the inner and outer rotors from the pump body.
- Clean all parts with fresh cleaning oil.



- Install the inner and outer rotors.
- Assemble the pump shaft with setting pins.

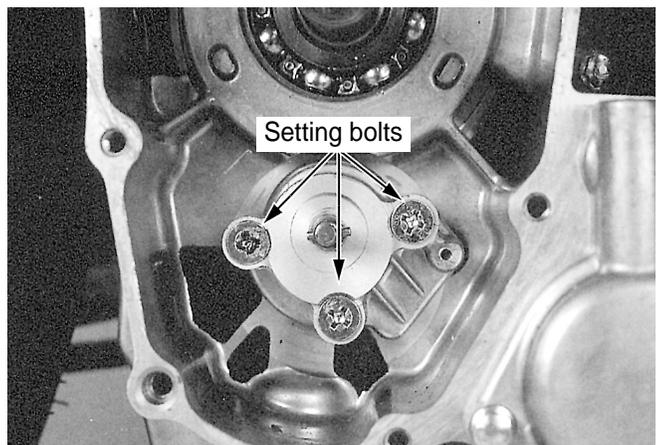


- Attach the oil pump plate to the pump body.
- Tighten screws.



Installation

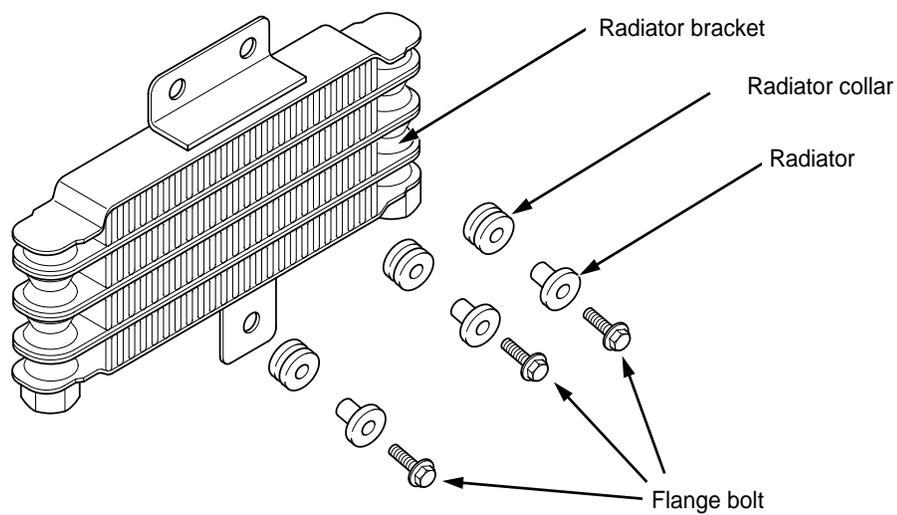
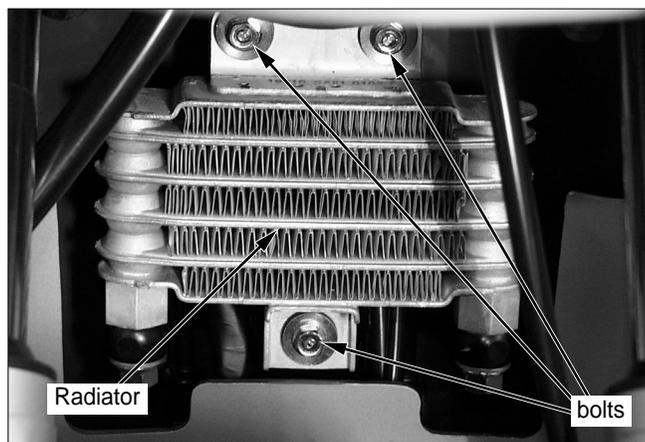
- Assemble the oil pump to the R. crank case cover.
- Install the following parts.
 - Oil pump drive gear and driven gear
 - Starter clutch
 - Starter driven gear and reduction gear
 - A.C. generator
 - R. crank case cover
 - Shroud and cooling fan
 - Center cover
 - Body cover
 - Luggage box



Radiator

Removal/Installation

- Remove the front wheel.
- Remove the front cover, front side cover and inner box.
- Loosen the flange bolt(3EA), oil bolt and remove the radiator from the main pipe bracket.



Lubrication

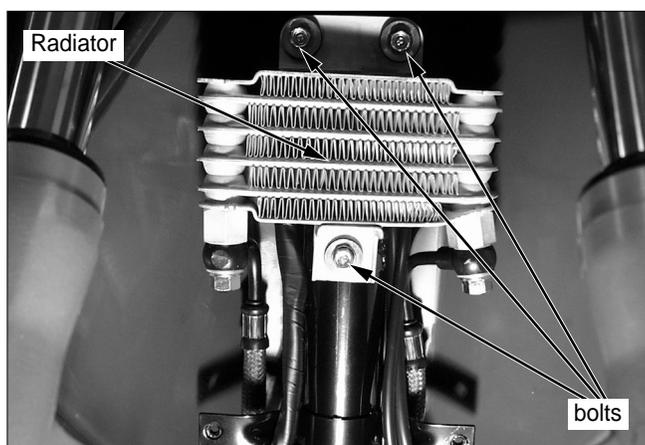
Inspection

- Check the damage or oil leaks from the radiator.



Radiator Installation

- Assemble the radiator to the main pipe bracket.
- Tighten the oil bolt.
- Install the inner box.
- Install the front side cover.

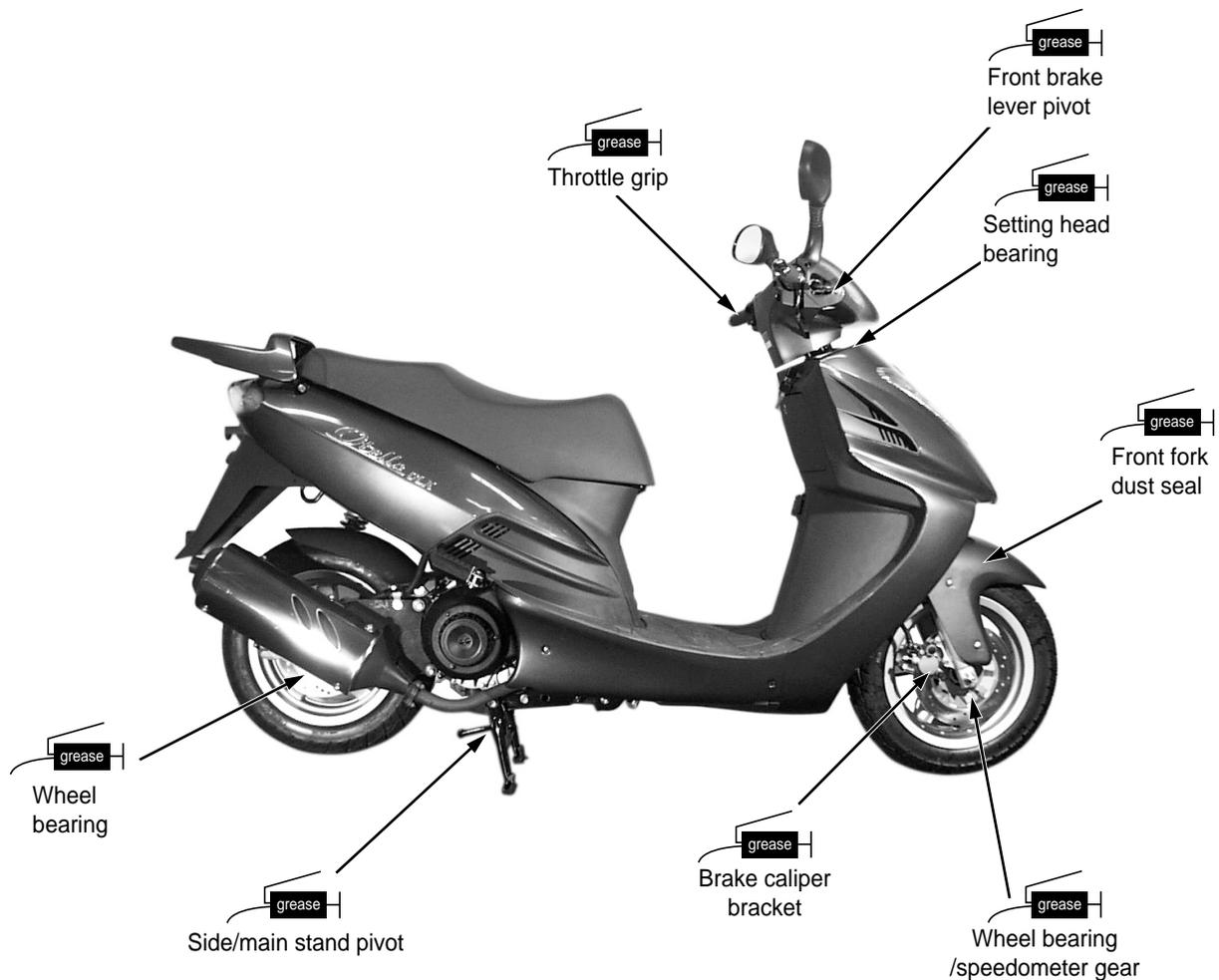


Lubrication Points

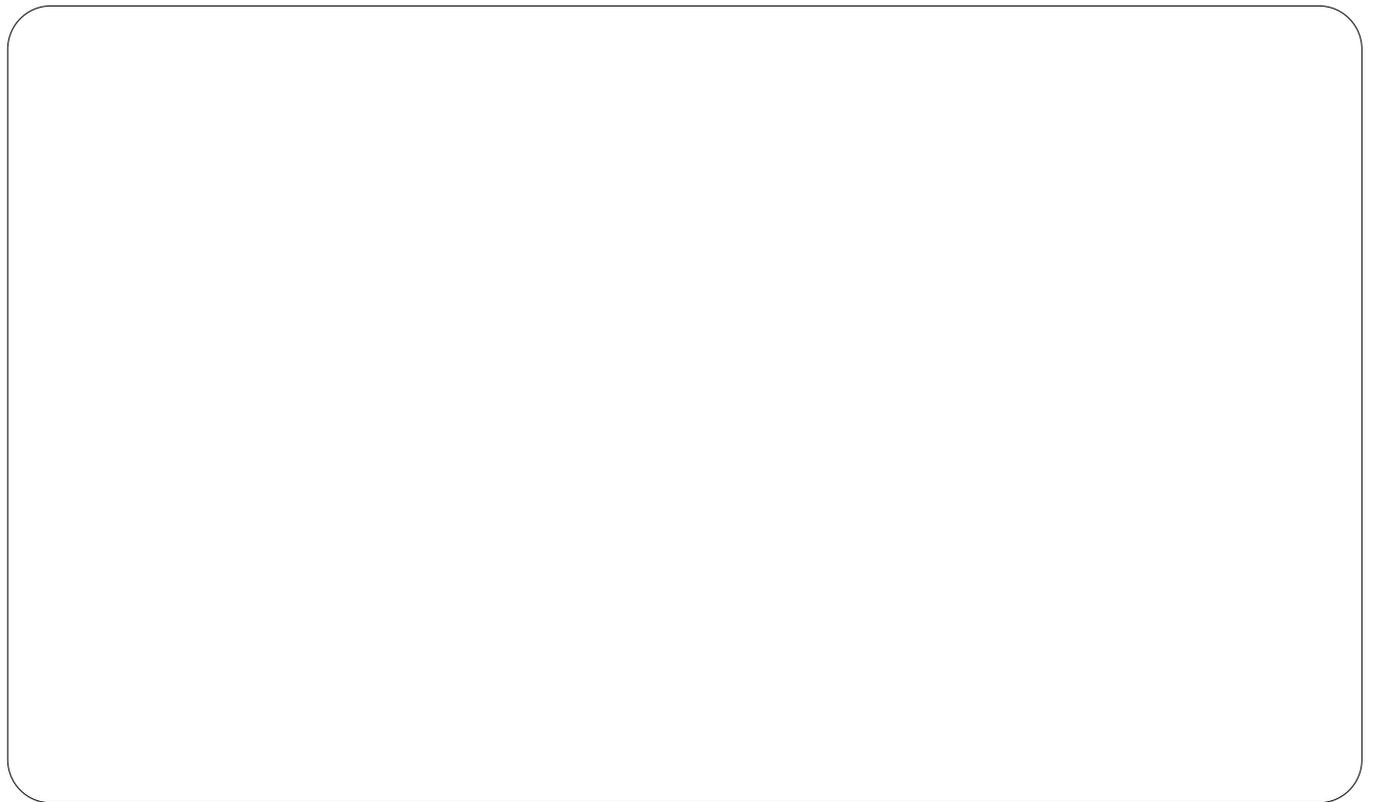
Unless specifically designated, use general grease to lubricate the lubrication points. For sliding parts not shown here, add oil or grease.

Control Cable Lubrication

Remove and clean the upper assembly of the throttle cable, and apply oil. If the cable has expanded, replace it.



MEMO



A large, empty rounded rectangular box with a thin black border, occupying the bottom half of the page. It is intended for writing notes or drawing.

3. Inspections/Adjustments

Service Information	3-1	Brake Pad	3-7
Regular Inspection Schedule	3-3	Brake System	3-7
Fuel Line	3-4	Brake Lever Free Play	3-8
Throttle Grip Operation	3-4	Headlight Adjustment	3-8
Air Cleaner	3-4	Side Stand	3-8
Spark Plug	3-5	Suspension	3-9
Valve Tappet Clearance	3-5	Bolts and Nuts	3-9
Cylinder Compression Pressure	3-6	Wheels/Tires	3-9
Carburetor Idling	3-6	Steering Head Bearing	3-10
Brake Fluid	3-7		

Service Information

WARNING

- The exhaust gas contains poisonous substance. Do not keep engine idling in a closed or poorly ventilated place for a long period of time.

NOTES

- For information on engine oil and oil filter, refer to sections 2-3 and 2-4
- Stand the main stand prior to beginning work.

Specifications

Throttle grip play	2 – 6mm(1/8-1/4 in)	
Spark plug	CR8EH-9	
Spark plug gap	0.8 – 0.9mm(0.031-0.035in)	
Valve clearance	IN	0.12 ± 0.02mm(0.005 ± 0.001 in)
	EX	0.12 ± 0.02mm(0.005 ± 0.001 in)
Carburetor idle speed	1,600 ± 100rpm	
Cylinder compression pressure	13.8kg/cm ²	

Tires

Cold tire pressure	Driver only	Front tire	175kPa (1.75kg/cm ²)
		Rear tire	200kPa (2.00kg/cm ²)
	Driver and a passenger	Front tire	225kPa (2.25kg/cm ²)
		Rear tire	225kPa (2.25kg/cm ²)
Tire size	Front tire		120/70-13(Tubeless)
	Rear tire		130/70-12(Tubeless)
Min,tread depth “ㄣ”	Front tire		4mm (0.16 in)
	Rear tire		7.5mm (0.3 in)

Inspections/Adjustments

Torque Values

Spark plug	1.1kg – m, (11N.m, 8ft – lb)
Cylinder head cover bolts	1.0kg – m, (10N.m, 7ft – lb)
Valve adjusting nuts	1.1kg – m, (11N.m, 8ft – lb)
Timing hole cap	0.6kg – m, (6N.m, 4.3ft – lb)

Tools

Wrench, 8 × 9mm
Adjusting wrench
Compression gauge

Regular Inspection Schedule

Carry out pre-operation check at each scheduled maintenance period based on the information described in the owner's manual.

I: Inspect, and clean, adjust, lubricate or replace, if necessary.

R: Replace L: Lubricate C: Clean

Item		Frequency	Odometer reading(Note 1)				Remark
			1000km	4000km	8000km	12000km	
				6	12	18	
*	Fuel line(Fuel tube)		I	I	I	I	
*	Fuel filter		R	R	R	R	
*	Throttle grip operation		I	I	I	I	
	Air cleaner		C for each 1,000km				Note 2
	Spark plug			I	R	I	
*	Valve clearance		I	I	I	I	
	Transmission oil					R	
	Engine oil		R	R	R	R	
* *	Engine oil filter element		R	R	R	R	
*	Carburetor idle speed		I	I	I	I	
	Brake fluid			I	I	R	Note 3
	Brake shoe/pad			I	I	I	
	Brake system		I	I	I	I	
*	Brake stop switch			I	I	I	
*	Headlight beam distance			I	I	I	
	Side stand			I	I	I	
*	Suspension			I	I	I	
*	Bolt and nut tightness		I		I		
* *	wheels/tires			I	I	I	
* *	Steering head bearing		I			I	

* Should be received by an authorized DAELIM dealer, unless the owner has proper tools and service data and not mechanically qualified.

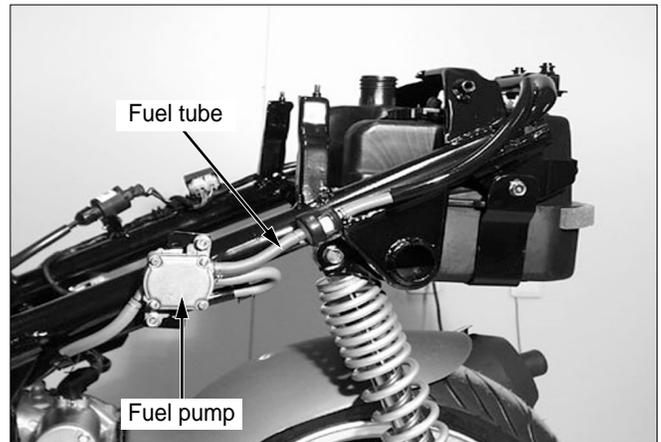
* * In the interest of safety, we recommended these items be served only by an authorized DAELIM dealer.

NOTE

1. After the odometer reading exceeds 12,000km, repeat maintenance service at intervals indicated in the table.
2. After riding in areas with high humidity or pollution, carry out maintenance service more frequently.
3. Replace every 2 years. Proper technology is required for this job.

Fuel Line (Fuel Tube)

- Remove the luggage box (⇒ 4-5)
- Check the fuel tube of the fuel pump connected to the fuel tank and carburetor. If the fuel tube is cracked, damaged or leaks, replace it.



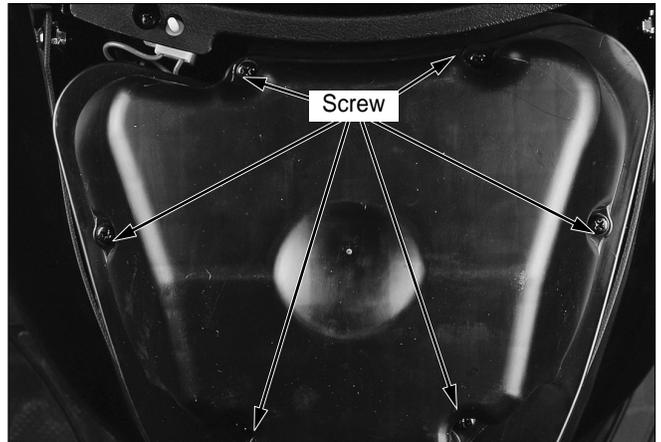
Throttle Grip Operation

- Check if the throttle grip operates smoothly in any steering position.
- If the throttle grip does not operate properly, lubricate the throttle cable.
- If the throttle grip does not operate properly, check the throttle cable for aging, damage or kinking.
- Check the throttle grip free play.
Free play: 2~6mm(1/8~1/4in)

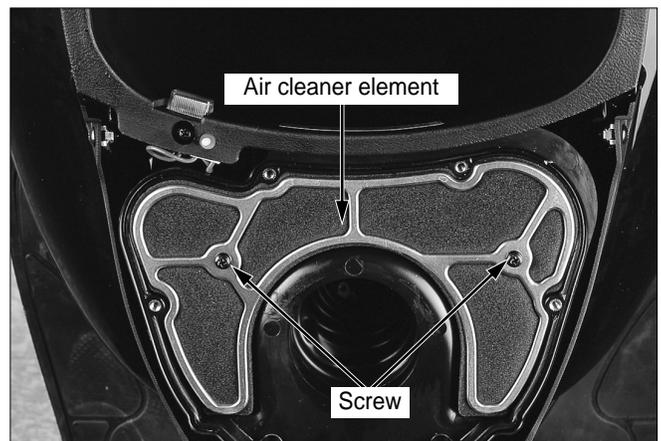


Air Cleaner

- Unlock the system with main key, and open the seat.
- Loosen the 6 setting screw assembled to the air cleaner case cover.
- Loosen the 2 setting screw assembled to the air cleaner element.



- Remove the air cleaner element.



- Soak the element in solvent, and dry completely.
- Soak in gear oil (SAE #80-90), and squeeze firmly to remove excessive oil.
- If the element is excessively contaminated or damaged, replace it.
- Assemble in the reverse order of the disassembling.

Spark Plug

- Remove the plug maintenance cover.
- Remove the spark plug cap and disassemble the plug.
- Check the plug for damage, contamination or deposits.
- If the spark plugs are severely contaminated or damaged, replace with new ones. If the plugs can be reused after removing only the carbon, use plug cleaner and wire brush to clean the plugs.
- Always use a feeler gauge to check the clearance.

Genuine plug: CREH-9

Spark plug clearance: 0.8-0.9mm

Torque value: 1.1kg-m(11N.m, 8ft-lb)

NOTE

- First, manually tighten the plugs, and use a spark plug wrench to tighten completely.

Valve Tappet Clearance

- Remove the following parts.
 - Center cover. (⇒ 4-4)
- Loosen the 4 cylinder head bolts.

NOTE

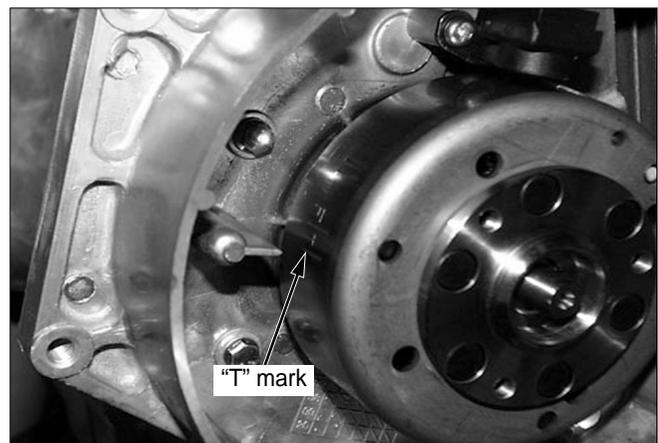
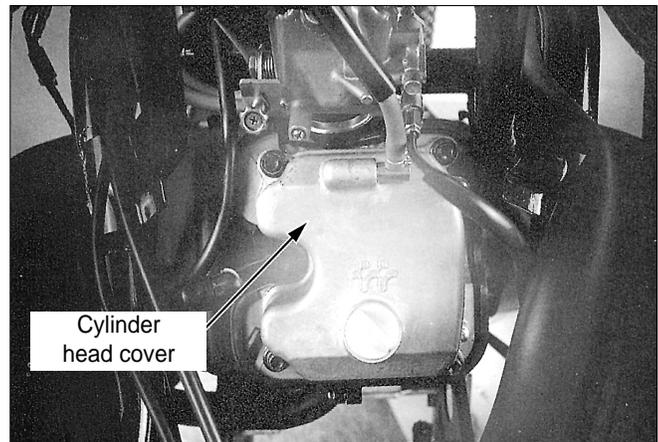
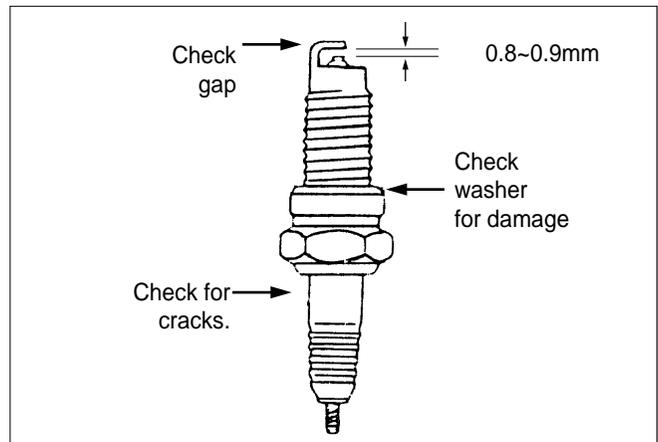
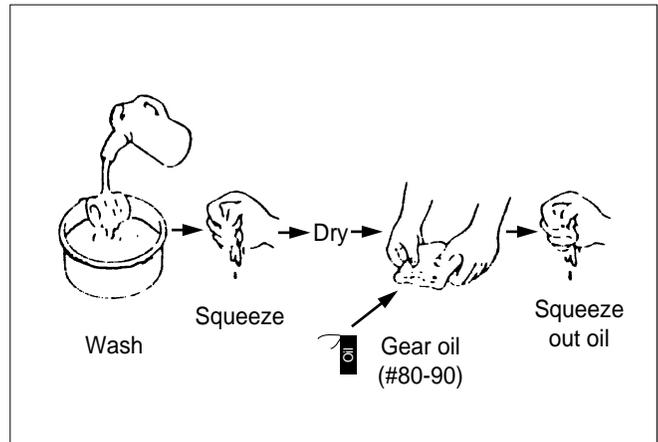
- Carry out inspection/adjustment when the engine is cold. (35°C/95F)
- Remove the cylinder head cover.
- Turn the flywheel counterclockwise, and match the "T" mark on the flywheel with the index mark on the R crank case cover.
- The piston at this time must be at the top dead center of the compression stroke.

- Measure valve clearance with a feeler gauge.

Valve tappet clearance:

Intake: $0.12 \pm 0.02\text{mm}$ ($0.05 \pm 0.001\text{in}$)

Exhaust: $0.12 \pm 0.02\text{mm}$ ($0.05 \pm 0.001\text{in}$)



Inspections/Adjustments

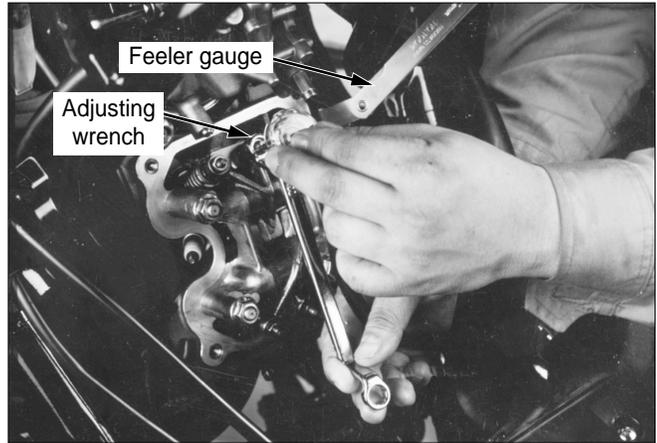
- Loosen the lock nut with a valve wrench, and set valve clearance to a prescribed level by turning the adjusting screw with a valve adjusting wrench.
- After setting clearance to the prescribed level, hold the adjuster screw with a valve adjusting wrench, and tighten the lock nut.

Torque values: 1.1kg-m(11N.m,8ft-lb)

Tools: Wrench 8 × 9mm

Adjusting wrench B

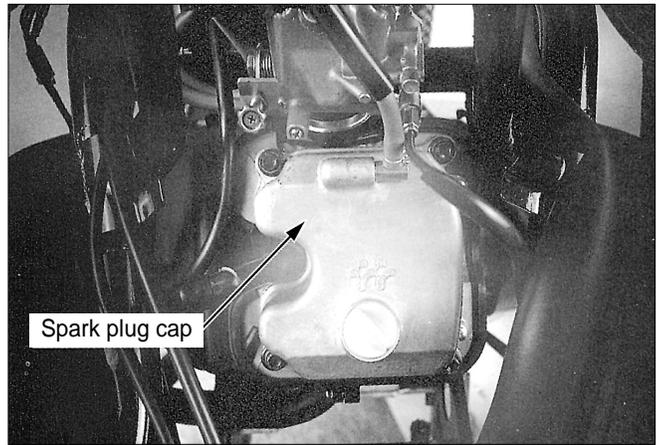
- Measure the valve clearance again.
 - Install the cylinder head cover and tighten the bolts.
- Torque values: 1.0kg-m(10N.m, 7ft-lb)**



Cylinder Compression Pressure

- Start and warm up the engine.
- Remove the plug maintenance cover.
- Stop engine, and remove the spark plug cap and spark plug.
- Install a compression gauge.
- Open the throttle completely, and crank the engine with the starter motor until the gauge reading rising.

Tool: Compression gauge

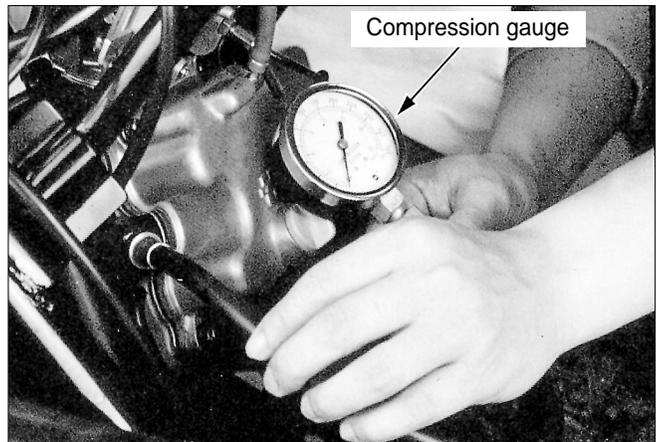


NOTE

- The maximum reading is usually reached within 4~7 seconds.

Compression pressure: 13.8kg/cm²

- If the pressure is low, check the following:
 - Inadequate valve clearance adjustment
 - Valve leakage
 - Leakage from the cylinder head gasket
 - Piston / cylinder worn
- If pressure is high, check the following:
 - Carbon deposits on the piston head, and cylinder head.



Carburetor Idling

NOTE

- Verify all engine adjustments satisfy specifications. Make adjustments, if necessary.
- Heat the engine to make accurate idling inspection and adjustment. Stand the vehicle on the main stand.
- Turn the throttle stop screw and make adjustments to prescribed idling speed.



Brake Fluid

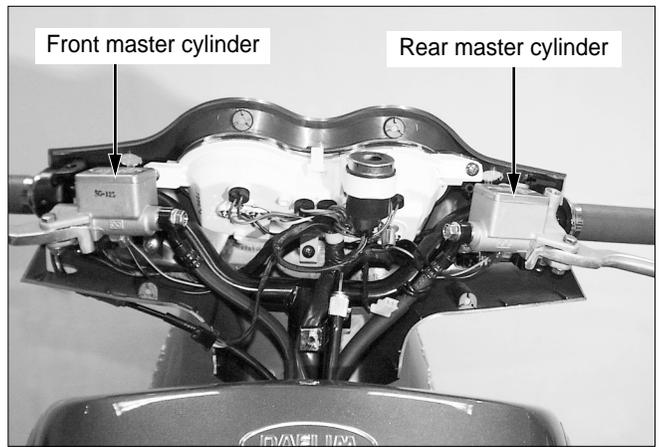
Front brake fluid

- Remove the screw rivet and take the front brake fluid maintenance lid off.
- Check the oil level inside the front brake reservoir. If the oil is near the lower limit line, remove the reservoir diaphragm and fill DOT 3 and DOT 4 brake fluid to the top limit line.
- If the brake fluid reaches the lower limit line, check the entire brake system for leaks.



Rear brake fluid

- Replenish in the same method as that of front brake fluid replenishment.



Brake Pad

Front brake pad replacement

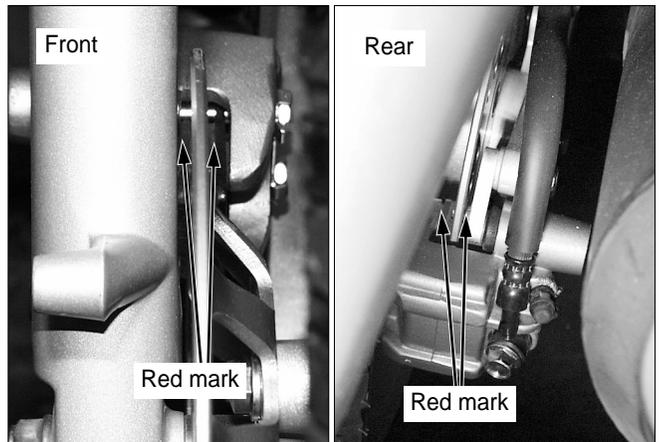
- Check the front brake pads for wear.
- If the red mark on the pad reaches the brake disk, replace the pads.

Rear brake pad replacement

- Replace in the same method as that of front brake pad replacement.

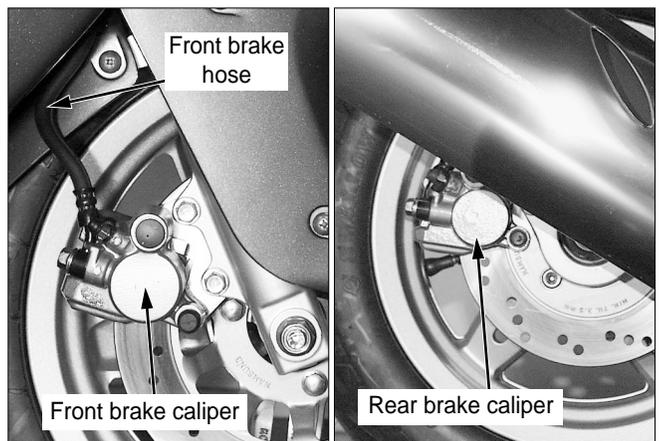
NOTE

- Replace the brake pads in sets.



Brake System

- Check the front brake hose and the rear brake hose for cracks or damage. If any leaks are found, replace immediately.
- Check the front brake rod and the rear brake rod for looseness or damage, and replace it if necessary.

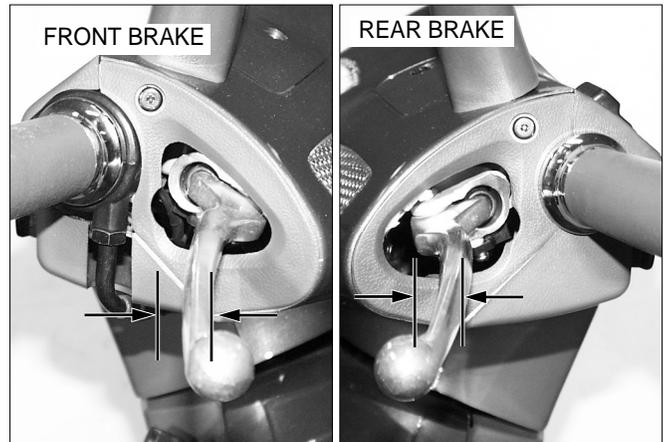


Brake Lever Free Play

- Check the free play after pulling the lever.

Front:10-20mm

Rear:10-20mm

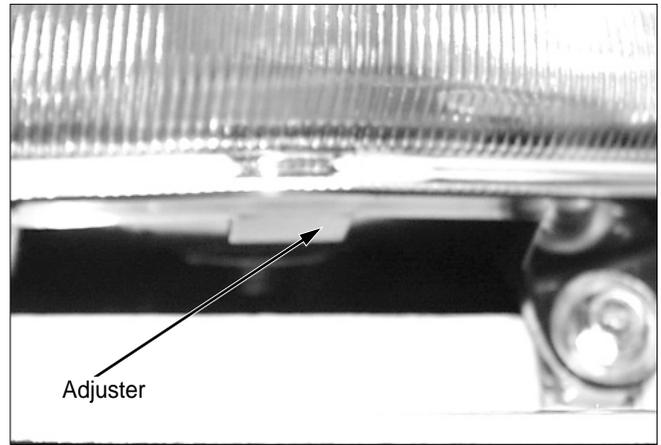


Headlight Adjustment

- Adjust the headlight beam level by operating the adjusting screw located on the upper side of the front fender.

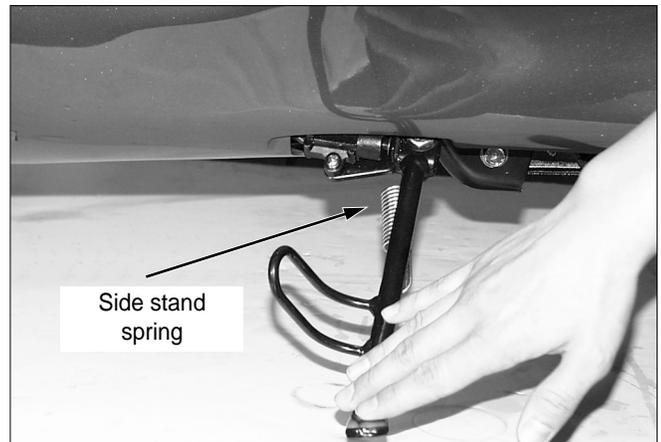
NOTE

- Adjust the beam level according to local laws and regulations.
- Improper beam level adjustment may blind on coming drivers, or may incorrectly light the road ahead.

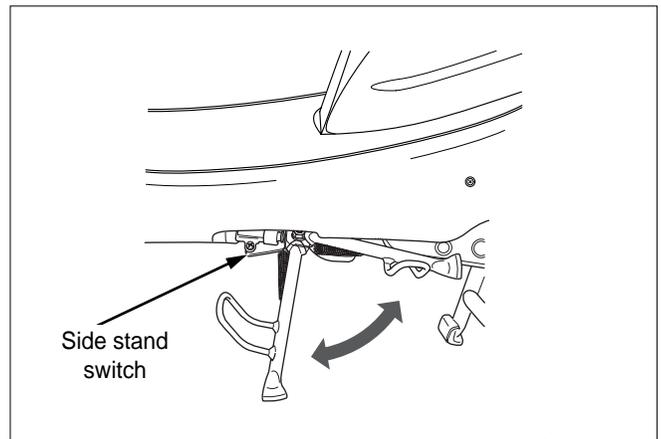


Side Stand

- Erect the main stand.
- Pull the lower end of the side stand, and see if it moves freely.
- If the side stand does not move smoothly, apply grease to the pivot area.
- If the side stand moves too freely, check the side stand spring.
- Check the axial movement of the side stand.



- Check the side stand ignition cut-off switch ;
 - Put the side stand up.
 - Start the engine.
 - Lower the side stand. The engine should stop as you put the side stand down.
- If there is a problem with the system, check the side stand switch.



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