

SERVICE MANUAL

RT-50



**January 2008
High power Engine
HER CHEE INDUSTRIAL CO., LTD.**

INTRODUCTION

This Service Manual is provided as the technical information for the check & preparation of ADLY RT-50 scooter, and the direction edited is given in diagrams with "Operation Sequence", "Key Points", and "Adjustment of Check" for reference of the service staffs.

This Service Manual is finished in accordance with the model of RT-50. Taking new model as standard if there are differences between the models described in this manual and the actual scooter.

HER CHEE INDUSTRIAL CO., LTD.

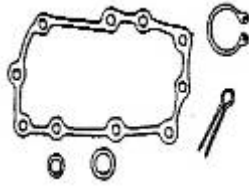
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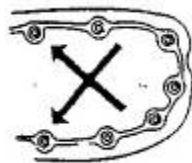
Chapter 1 Information for Preparation

Attention on Operation

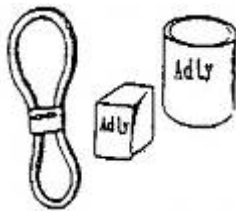
- All washers, oil rings, clamp rings, opening pins shall be duly replaced by a new item when dismantled.



- Locking of all screws, nuts, cross screws shall be performed in the order of first the large screws and then the small ones and from inside to outside in opposite angles by tightening the torque locks.



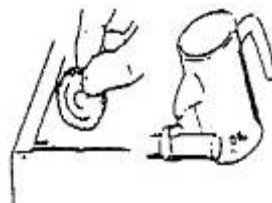
- All items must use original parts, pure oil and greases.



- All service shall use special tools and general tools to repair.



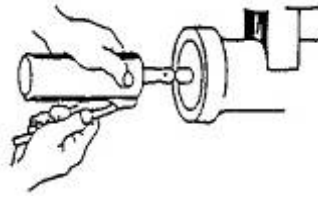
- All dismantled items requiring for checks shall be duly cleaned and for assembly, all items shall be duly lubricated.



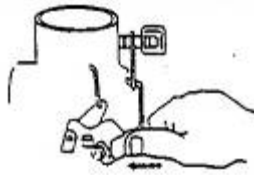
Chapter 1 Information for Preparation

Attention on Operation

- Certified lubricants in cans shall be used on all the elements to be lubricated.



- After assembly, performance of all elements shall be duly checked and the locking shall be duly verified.



- In case of an operation is performed by over 2 people, the assignment shall be conducted in coordination and safety shall be the first priority.



- Definition of signs:

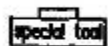
The sign given in the Service Manual shall refer to the operation methods and observation.



OIL: Lubrication by designated lubricant.



GREASE: Lubrication by grease



Special Tool: Parts on which special tools shall be used



General Tool: General tools shall be used



New: Replace by new items after dismounting



Attention



Dangerous and important operations

SPECIFICATION

TYPE	RT 50
LENGTH	1585mm
WIDTH	700 mm
HEIGHT	960 mm
WHEEL BASE	1070 mm
NET WEIGHT	
ENGINE TYPE	2-STROKE, Single Cylinder
COOLING	AIR COOLED
DISPLACEMENT	49.26 C.C.
BORE×STROKE	40.0×39.2
COMPRESSION RATIO	7.2:1
IGNITION	C.D.I
STARTER	ELECTRIC / KICK
SUSPENSION	Hydraulic Shock Absorber
TRANSMISSION	AUTOMATIC
TIRE FRONT/REAR	Front 120/90-10 (Option) Rear 120/90-10 (Option)
FRONT BRAKE	Disc
REAR BRAKE	Drum

LOCKING TORQUE

Adopt the standard torque locking for the item unlisted.

STANDARD TORQUE :

Type	Locking Torque (kg-m)
5 mm Screw	0.4
6 mm Screw	1.0
6 mm Hex Washer Face Bolt / Nut	1.2
8 mm Hex Washer Face Bolt / Nut	2.7
10 mm Hex Washer Face Bolt / Nut	4.0

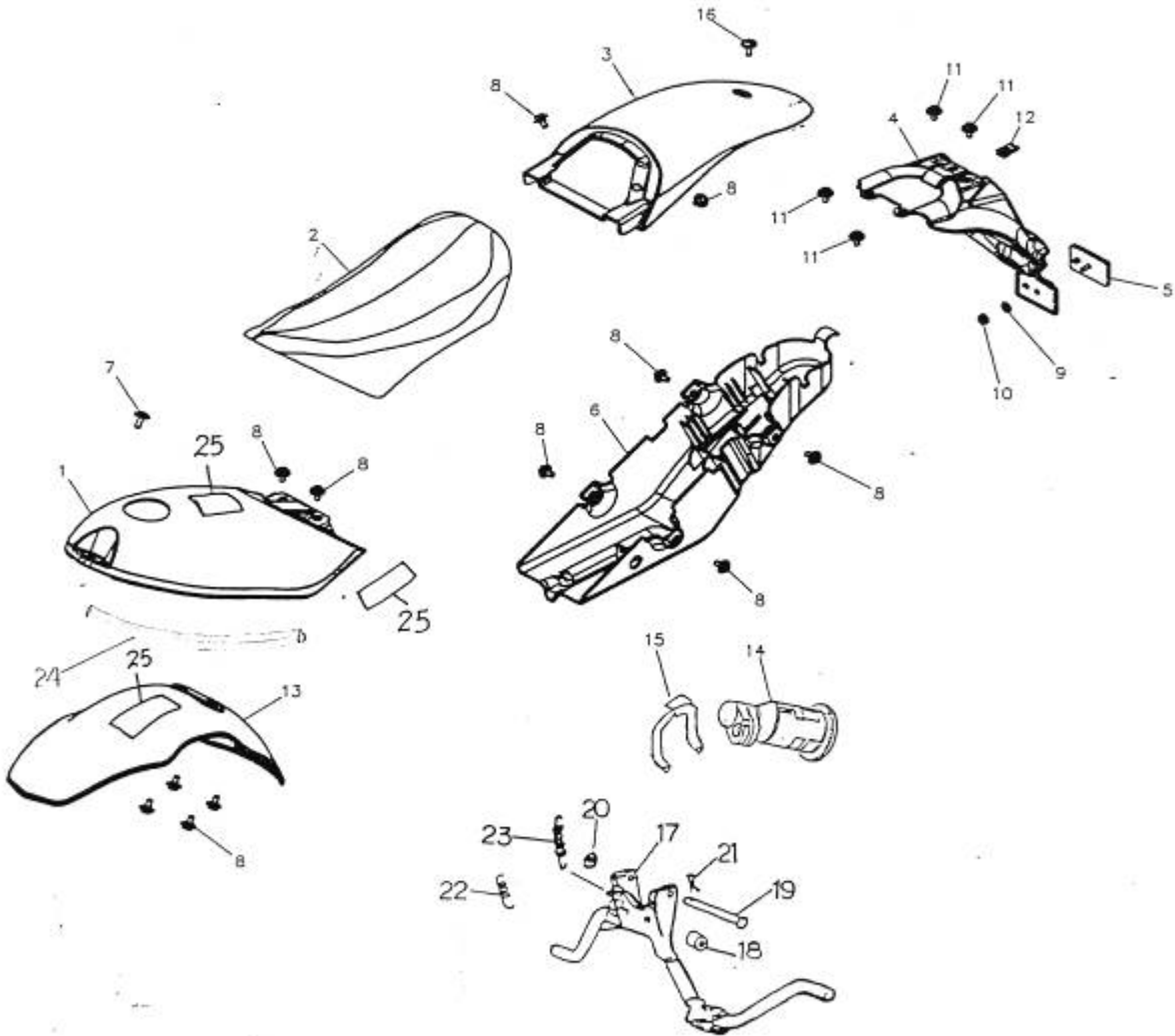
CHASSIS :

Locking Place	Quantity	Dia. (mm)	Locking Torque (kg-m)
Spanner Nut of Handle Steering Steam	1	25	7.0
Front Wheel Axle Nut	1	10	4.5
Rear Axle Nut	1	14	11
Rear Brake Arm Screw	1	5	0.6
Upper Screw of Rear Shock Absorber	1	10	4.0
Lower Screw of Rear Shock Absorber	1	8	2.7
Engine Mounting Bracket	1	8	6.0

ENGINE :

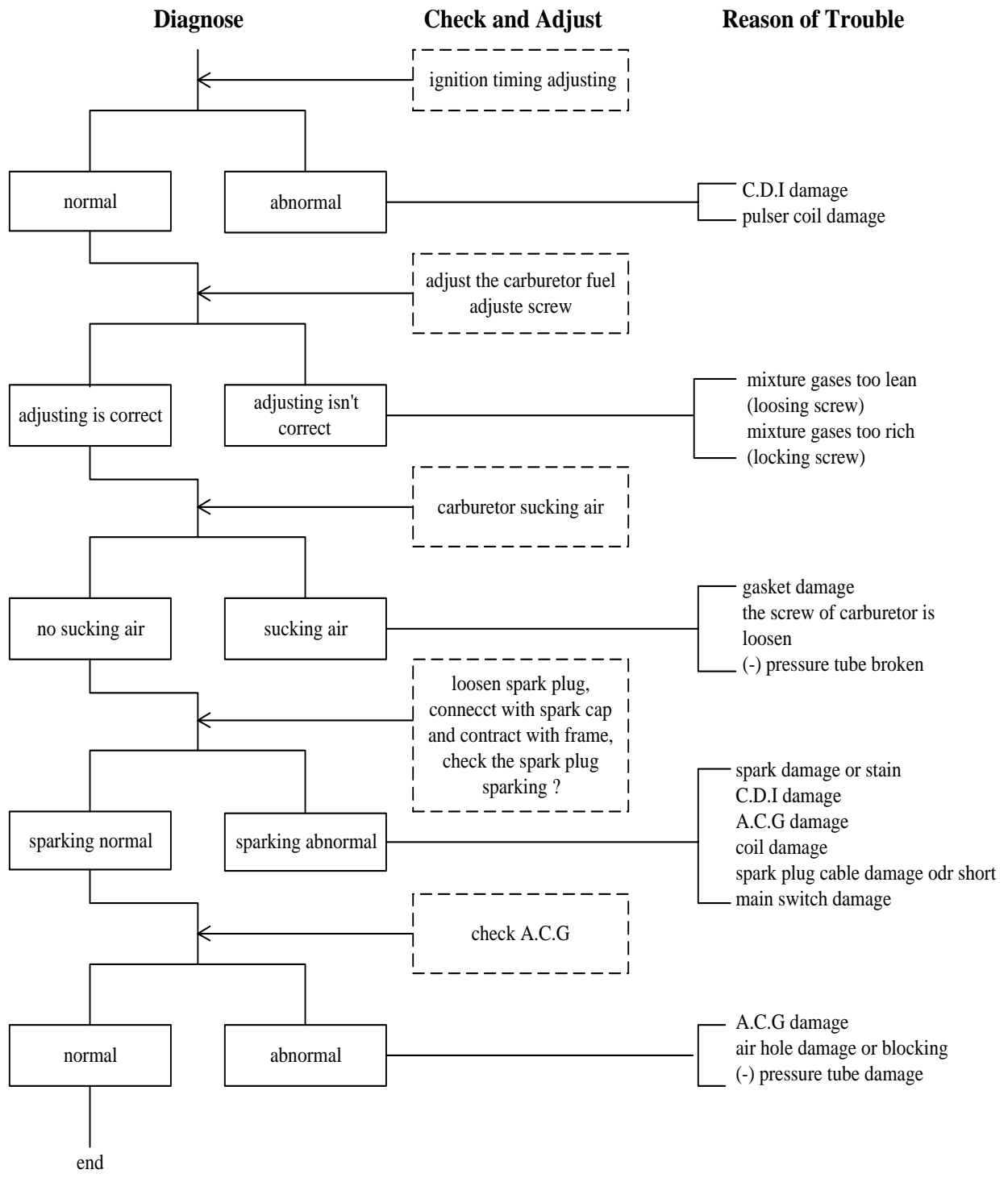
Locking Place	Quantity	Dia. (mm)	Locking Torque (kg-m)
Screw of Cylinder Cap	4	6	1.0
Flywheel Nut	1	10	3.8
Clutch Jacket Nut	1	11	3.8
Driving Disc Nut	1	28	5.5
Nut of Transmission Disc	1	10	3.8
Oil-check Screw	1	8	1.3
Joint Screw of Exhaust Manifold	2	6	1.2
Exhaust Pipe Support Screw of Muffler	2	6	1.2
Spark Plug	1	14	1.4
Bolt of Crank Shaft Case	6	6	10
Bolt of Engine Installation	1	8	5.0

The following drawing that shows the disassembling situation of the cover parts for RT50 scooter.



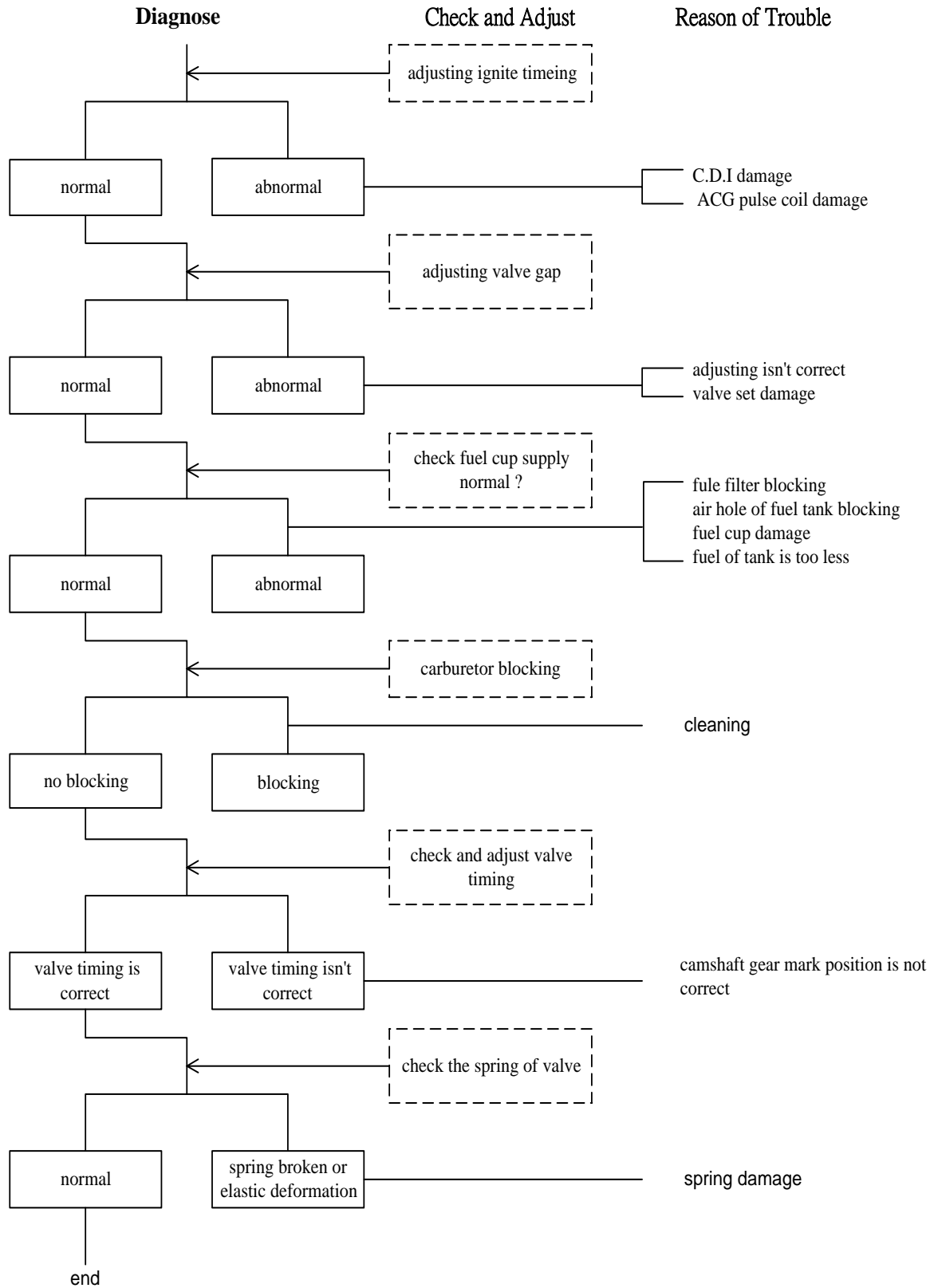
Chapter 1 Information for Preparation

INFORMATION FOR PREPARATION
REVOLUTION NOT STABLE (LOW R.P.M.)



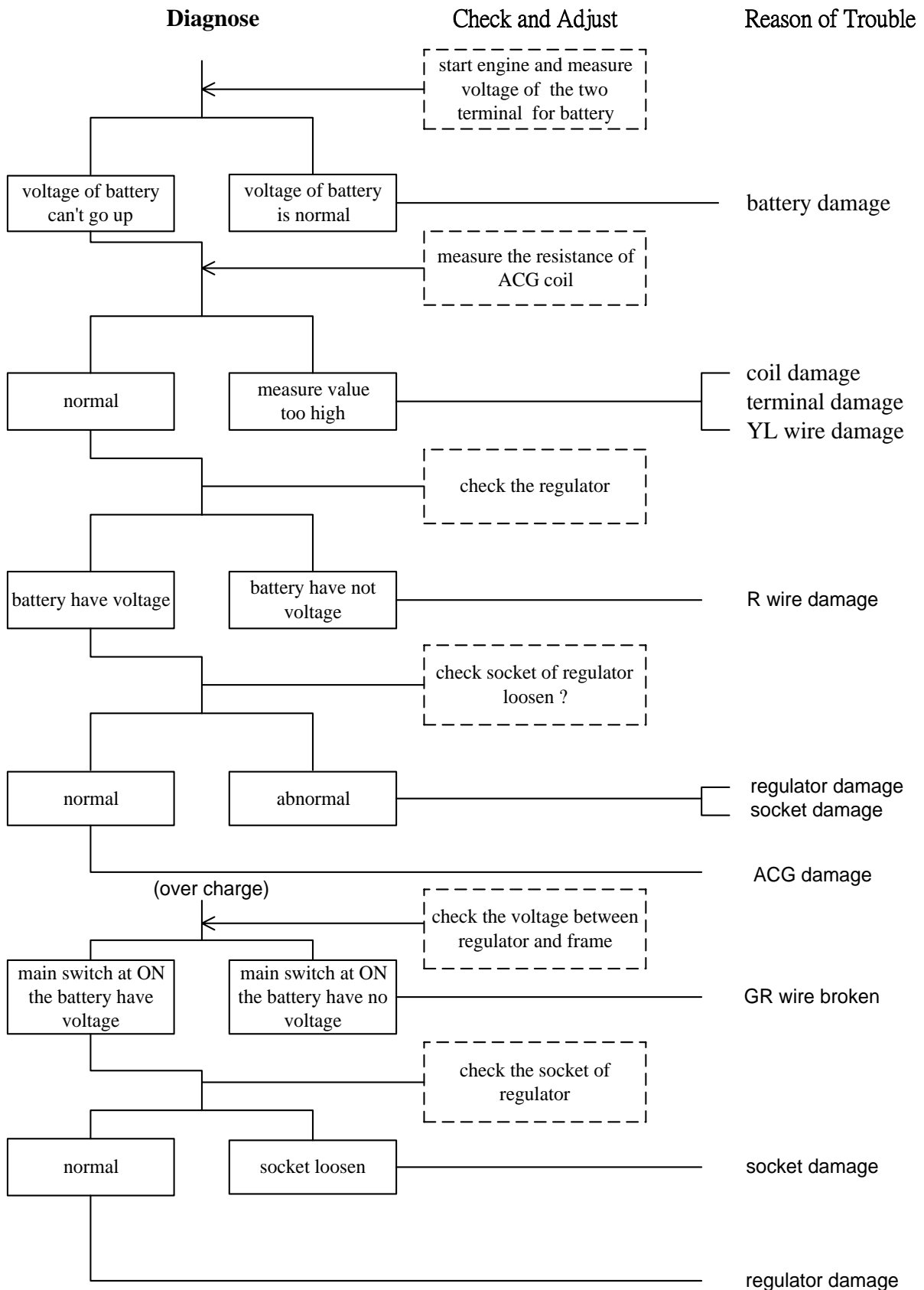
Chapter 1 Information for Preparation

INFORMATION FOR PREPARATION REVOLUTION NOT SMOOTH(HIGH SPEED)



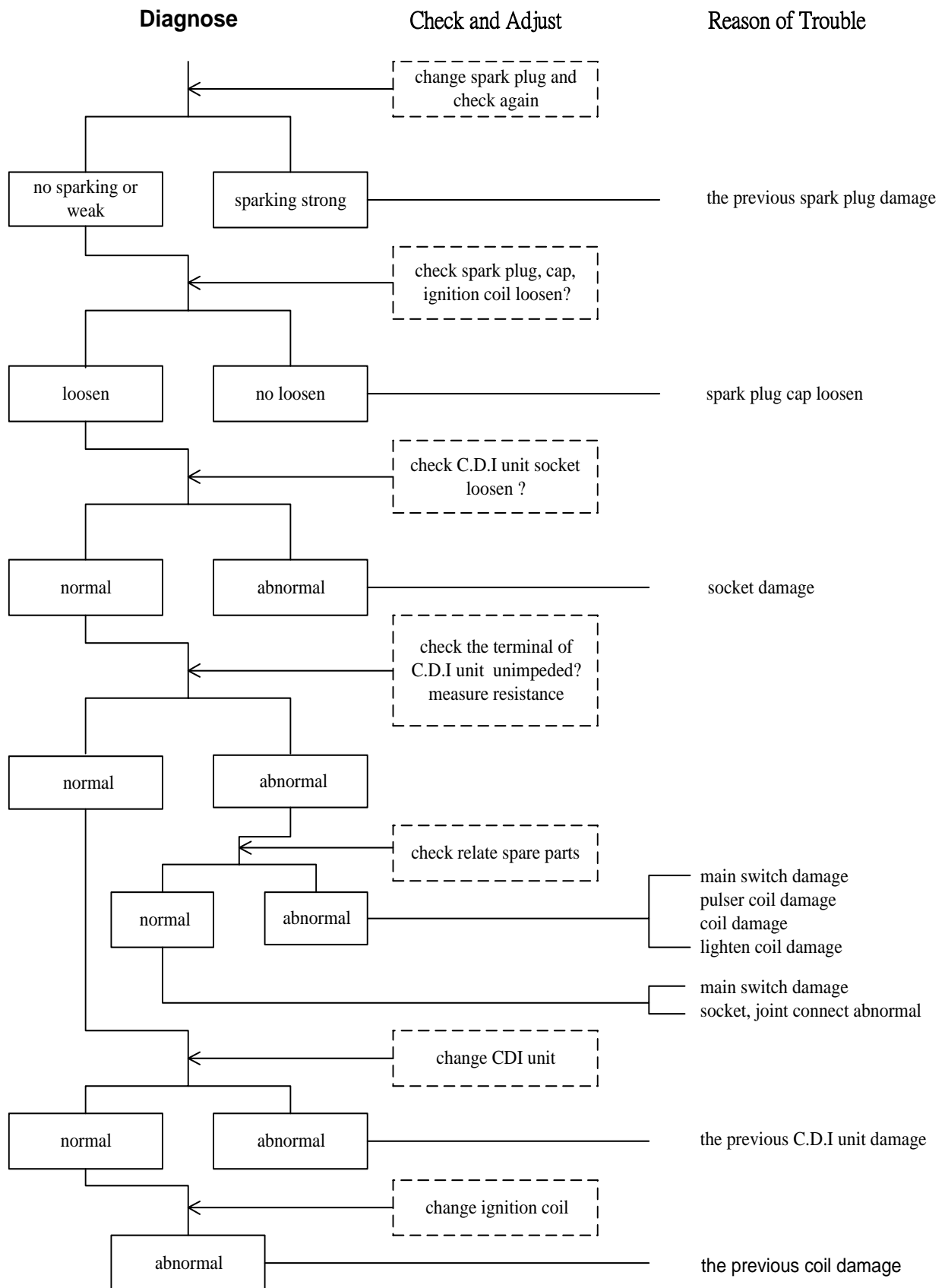
Chapter 1 Information for Preparation

INFORMATION FOR PREPARATION CHARGE ABNORMAL



Chapter 1 Information for Preparation

INFORMATION FOR PREPARATION SPARK PLUG NO SPARKING



Chapter 2 Check and Adjust

Way of Check & Adjustment

1. Mark “○” is checking time.
2. Mark “☆” is the regular exchange of service items.

This exchange time is just for general riding of the majority not for the special use, please arrange with this principle according to the difference of the riding condition.

Service Items	Service Time (month)				Judgment Standard	Remarks	
	Before riding	1st	each 6	each 12			
Operating Device							
Handle- Play, loose/tight Operation				○			
Wheels- Right/left turn round angle				○			
Front Fork-Damage Installation of shaft Shaft Gap			○	○		Direction Post Direction Post	
Brake Device							
Brake- Play Try to run Correct brake	○		○	○	Play of brake lever 10-20 mm		
Wires- Loose / tight and damage		○	○	○			
Gap of casing & brake			○	○			
Wore of brake & operating parts				○		Direction	
Wore & Damage of casing				○	Standard diameter 110 mm Limitation 110.5mm		
Riding Device						front	rear
Tires-Air pressure of tires	○	○		○	Air pressure	1.50 kg/cm ²	1.75 kg/cm ²
					tire	120/90-10	130/90-10

Chapter 2 Check and Adjust

Service Items	Service Time (month)				Judgement Standard	Remarks
	Before riding	1st	each 6	each 12		
Riding Device						
Tires Check & damage of tires	○		○	○	Ditch-front and rear wheel till 0.8 mm	
Abnormal & ditch in tires	○		○	○		
Bolt & nut of tires locking			○	○	Flocking torsion Front wheel – 4.0~5.0 kg-m Rear wheel –10~12 kg-m	
Damage of wheels ,disc		○	○	○	Vibration of wheel Front wheel – horizontal under 3 mm, vertical under 3 mm, Rear wheel – horizontal under 3 mm, vertical under 3 mm	
Tightness of front bearing				○		
Tightness of rear bearing				○		
Suspension device						
Spring -damage				○		Spring of shock absorber
Suspension arm – damage of joint gap & arm				○		
Tightness of installation				○		
Power transmission device						
Clutch -action		○	○	○		
Crankcase oil leakage or damage				○		
Transmission gear oil			○	○		
Electric device						
Ignition device -condition of ignition spark plug			○	○	Gap of spark plug 0.6~0.7 mm	
Battery -connection of terminal				○		
Wiring of electrical appliance – damage or loose in connection place				○		

Chapter 2 Check and Adjust

Service Items	Service Time (month)				Judgement Standard	Remarks
	Before riding	1st	each 6	each 12		
Engine						
Body – starting & abnormal noise			○	○	Idle : 1800±100 rpm	
low speed & accelerating exhaust		○	○	○		
air filter			○	○		
			○	○		
Lubrication device						
Oil and oil filter			○	○	Warning light lighting	
Oil leakage			○	○		
Fuel installation						
Gasoline filter is dirty				○		
Leakage of fuel			○	○		
Throttle gate & choke				○		
Fuel filter is clogged				○		
Oil level	○					
Alteration of pipes					each 2 years	
Lights & direction lights						
Action			○	○		
On/off normal , dirty , damage	○					
Rear view mirror	○			○		
Instrument –action				○		
Exhaust pipe & muffler						
Installation loosed or damage				○		
Function of muffler				○		
Frame & body –loose or damage				○		
Abnormal from previous day –confirm normal	○					
Others- greasing of each part			○	○		
Cleaning combustion chamber , exhaustpipe , and carbon muck in muffler				○		

Chapter 2 Check and Adjust

Disassembly of External Parts

Remove the external parts for checking and adjustment

Read cover

- * Open the seat.
- * Remove the 2 hex-nuts, 1 bolt to remove the luggage rack.
- * Remove 10 self-tapping screws and 2 round-headed bolts..
- * Remove the central and body cover
- * Install with reverse sequence.

ATTENTION :

- Please do keep away the unit of the body and the pedal from damages.
- Before tightening the screws, be sure of correct matching of all units.

Cowling

- * Remove 4 tapping screws and 2 round-head bolts.
- * Separate the joint of inner parts and remove the cowling.
- * Install with reverse sequence.

Front Cover

- * Remove 4 tapping screws and 3 hex-nuts.
- * Separate the joint of inner parts and remove the cowling.
- * Install with reverse sequence.

ATTENTION :

- Be sure of not damaging the front pane land the front inner union (the convex and concave portions).
- While tightening the screws, be sure of the matching with the luggage case.

Floor panel

- * Remove the L/R side cover and body cover.
- * Remove 4 hex bolts.
- * Separate the front interior covering joint (the claw and the groove) and remove the pedal.
- * Follow the sequence in reverse order for assembly.

ATTENTION :

- After joining the pedal and the front interior covering, mount it onto the chassis.

Luggage case

- * Open the luggage case cover.
- * Remove 4 tapping screws and 1nut,

separate the join with the chassis (the concave and the convex) and remove the front cover.

- * Remove the main switch cap.
- * Follow the sequence in reverse order for assembly.

ATTENTION :

- Be sure the joint of front cover and cowling jointing correctly before tie-up the screws and nuts.

Tail light assembly

- * Remove 2 hex bolts and rear fender assembly.
- * Remove the left and right body covers.
- * Remove 2 hex bolts and the tail light assembly.
- * Follow the mounting sequence in reverse order.

ATTENTION :

- Match the rear guard holes and the convex of the chassis.

Handle covering

- * Remove the rear mirror
- * Remove 3 tapping screws, separate the joint from the handle rear cover and remove the cover.
- * Dismantle the speedometer cable adapter.
- * Remove the speedometer and head light assembly.
- * Dismantle the handle switch wiring.
- * Follow the reverse sequence for ass'y

ATTENTION :

- Matching the joint of handle cover with the head light case.
- Load the cables and wires accordingly.
- After the assembly, check the function of all switches.

Adjustment of the head light

- * Adjustment of the beam of the head light is by loosening the screw underneath the head light

Chapter 2 Check and Adjust

Serviceable parts layout

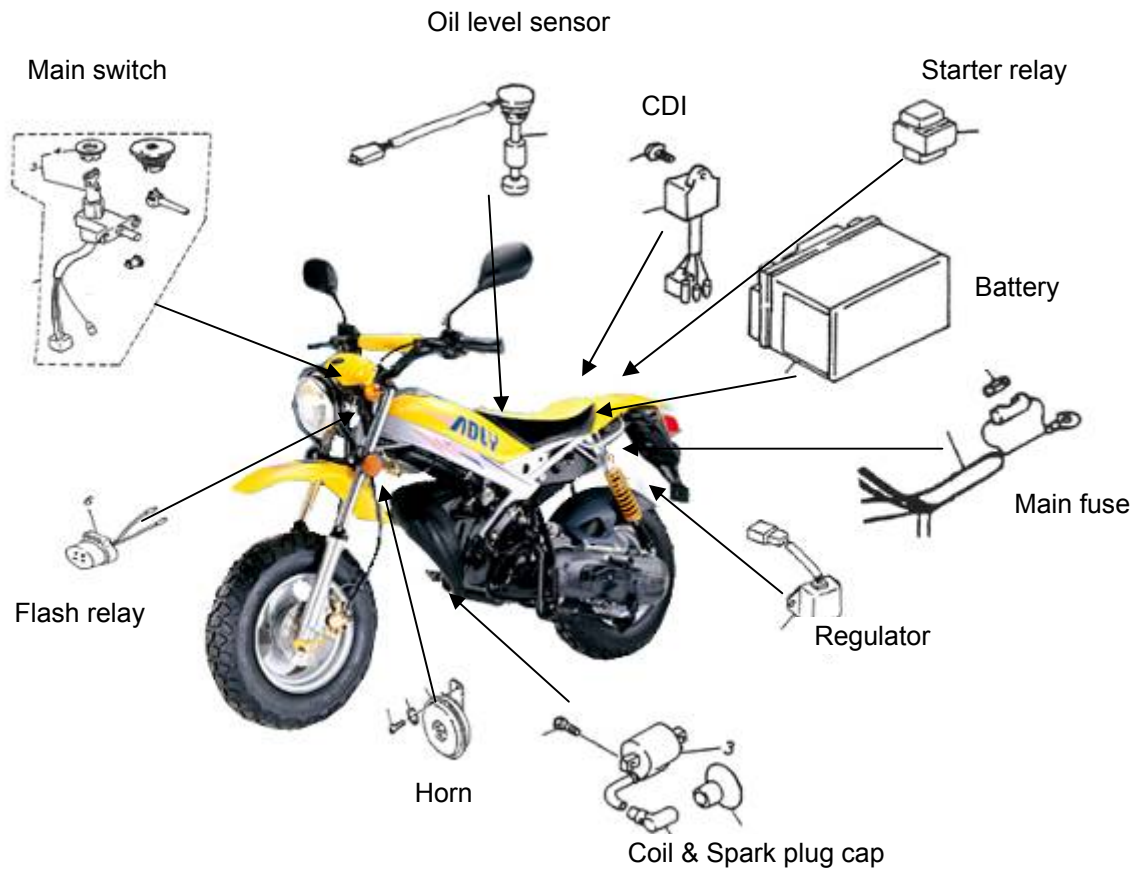
The drawing shows the main serviceable parts.



Chapter 2 Check and Adjust

Serviceable parts layout

The drawing shows the main serviceable parts.



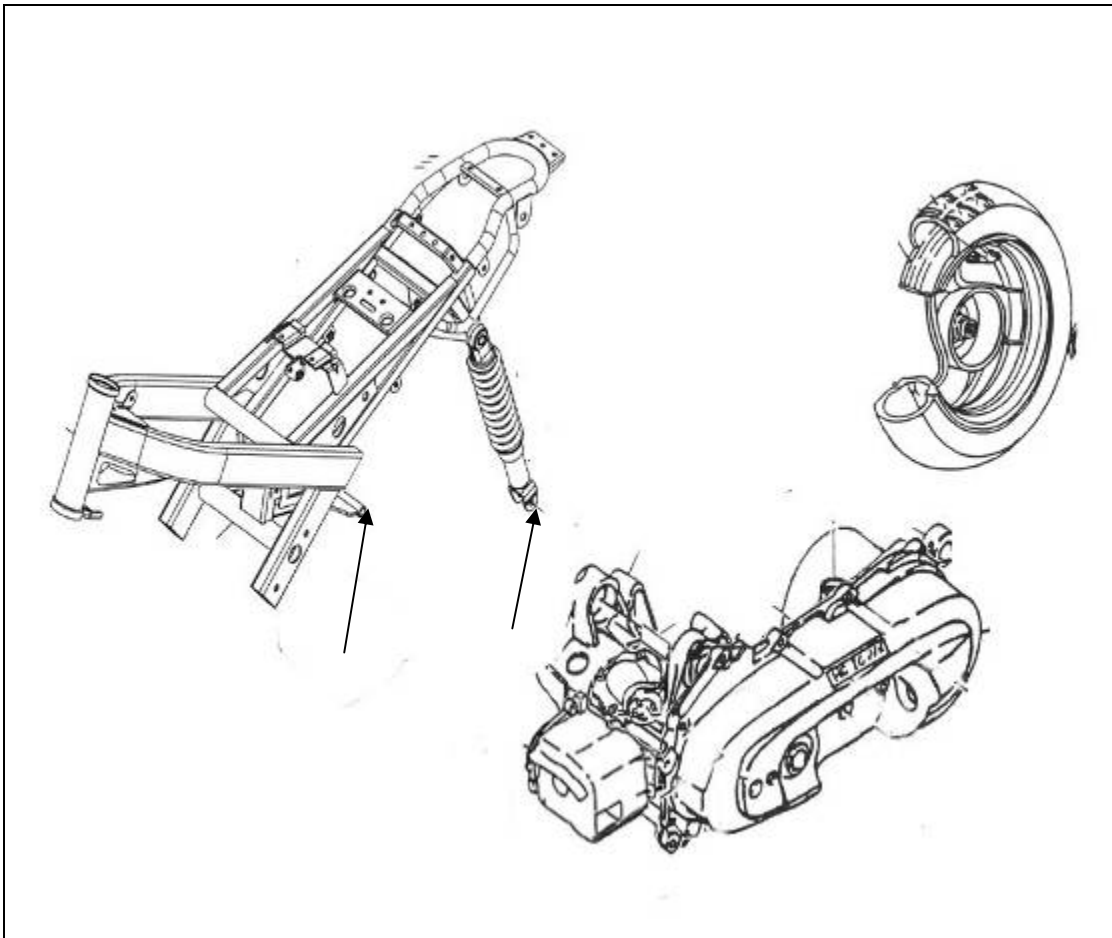
Chapter 3 Engine Removal

Attention of Operation

- Following operation needs remove the engine from frame body.
 - Disassembly crank shaft case
 - Remove crank shaft
 - Exchange bearing of final transmission mechanisms.

Disassembly of Engine

- Disassembly of external cap of body.
- Disassembly of luggage case.
- Disassembly of throttle valve.
- Adjustment the throttle cable.
- Adjustment the rear break cable.
- Adjustment the oil pump control cable.



Chapter 4 Engine Removal

Operation / Parts Name		Q'ty	Remarks
Disassembly			
1	ACG wire /wire of start motor	2	WARNING: <ul style="list-style-type: none"> • The oil over-flow when remove the oil tube, so use clip or plug stop the seal. WARNING: <ul style="list-style-type: none"> • Don't damage rear fender when remove the engine. • Actually for brace the frame, avoid body turn inside out.
2	Starter wire of carburetor	1	
3	Oil tube	1	
4	Fuel tube	1	
5	Vacuum pressure tube	1	
6	Cap of spark plug	1	
7	Hex washer face bolt of rear cushion	1	
8		1	
9	Oil pump control cable	1	
10	Cable of rear brake	1	
11	Throttle cable	1	
12	Hex washer face bolt of engine	1	
13	Bolt	1	
14	Engine	1	
15	Nut	2	
16	Engine bracket bolt Engine bracket	1	
Assembly			
	16→1		WARNING: Carry out following adjusting after installation. –Cable of throttle valve –Oil pump control cable –Rear break cable

Chapter 4 Engine Removal

Engine Removal

Remove L/R step bar.

Remove air filter and muffler.

Disconnect fuel/oil/vacuum tube on the carburetor.

Disconnect throttle cable.

Disconnect all electrical connectors and spark plug cap from engine to main wire harness.

Disconnect rear wheel brake cable.



Notice:

Plug all tubes to avoid fuel/oil leak.

With the main stand raise, loosen the rear shock absorber fix bolt and engine to bracket mounting nut.

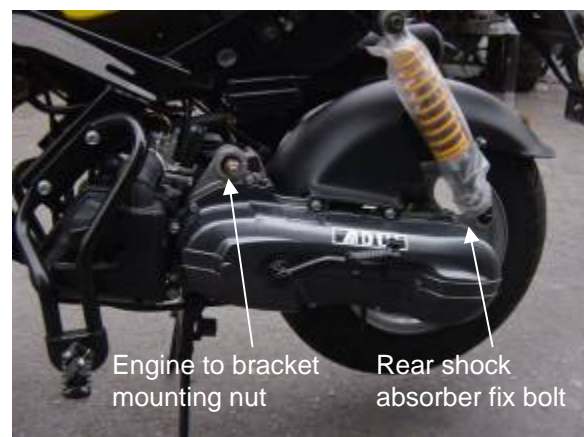
With assistant to hold vehicle frame then remove engine to bracket mounting nut.



Raise the vehicle frame to apart the engine with rear wheel and main stand.

Notice:

Store the vehicle frame firmly to avoid falling damage.



Engine Installation

Install the engine and related components in the reverse order of removal.

Chapter 4 Cylinder Head / Cylinder / Piston

Attention of Operation

- Can be operating when engine on the vehicle.
- Must cleaning before operating, avoiding dust enter to engine.
- Remove the gasket dust stay on joint face.
- When remove the cylinder, avoid to using screw driver to damage the joint face.
- Avoid to damaging the cylinder inner surface and piston face.
- Cleaning before check parts, and smear motor oil appointed in sliding face before installation.

Diagnosis of Troubles

Low compression pressure, poor start, idle speed not stable

- Air leakage of the cylinder head gasket
- Wear out or damage of the piston ring
- Wrong installation of spark plug
- Wear out or damage of the cylinder and piston
- Reed valve is poor.

Compression pressure too high, overheating, locking

- Carbon accumulated on the cylinder head or piston top.

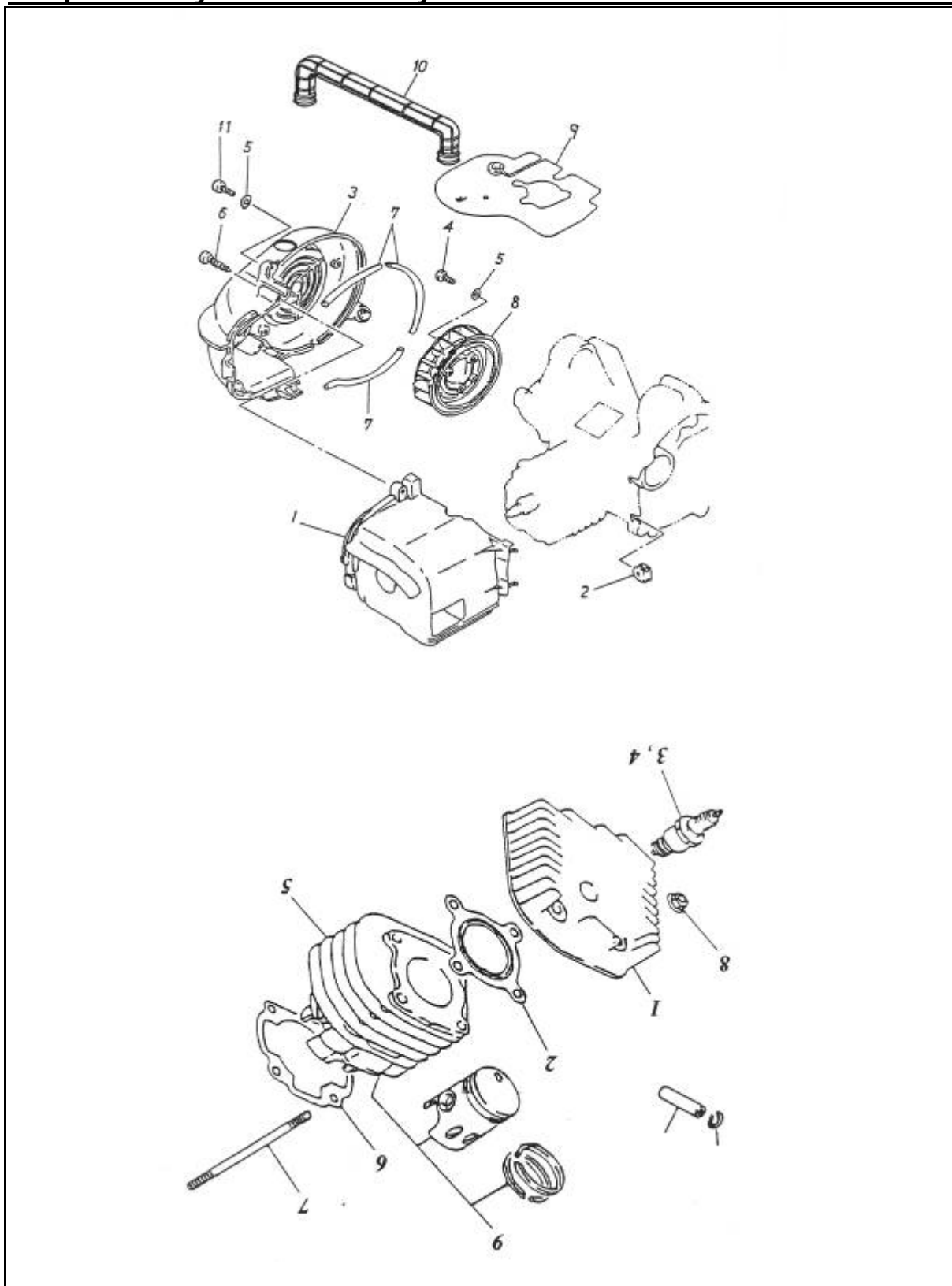
Piston knocking noise

- Wear out of the cylinder and piston
- Wear out of the piston pin hole and piston pin
- Wear out of the needle bearing of crank connecting rod (small end)

Piston ring noise

- Wear out or damage of the piston ring
- Wear out or damage of the cylinder

Chapter 4 Cylinder Head / Cylinder / Piston



Chapter 4 Cylinder Head / Cylinder / Piston

Operation / Parts Name		Q'ty	Remarks
Disassembly Cylinder head			
1	Nut of cylinder head	4	WARNING: –Cross loosening the nuts 2-3 times.
2	Cylinder head	1	
3	Cylinder head gasket	1	
Cylinder			
4	Cylinder	1	WARNING: –Don't knock cooling fin. –During cleaning the gasket beware not to damage joint face of cylinder and crank case.
5	Cylinder gasket	1	
Piston			
6	Piston ring clip	2	
7	Piston pin	1	
8	Piston	1	
9	Piston ring	2	
10	needle bearing of small side	1	
Assembly 10→1			–Operation with sequence in reverse procedure.

Removal

Disassembly of right side generator cover.

Remove air filter and spark plug cap

Disassembly of muffler.

Separate the oil tube on air shroud.

Pull out air-shroud of the cylinder.



Chapter 4 Cylinder Head / Cylinder / Piston

Remove cylinder head, cylinder and piston

Loosen then remove four cylinder head fixed nuts.

Remove the cylinder head and gasket
Remove the cylinder head.

Pull the cylinder out of engine.

Remove piston pin clip by using a long nose pliers.

Pull the piston pin out of piston and remove the piston from connecting rod



Inspection cylinder head

Clean the carbon and oil accumulation on the combustion chamber.

Use a metal ruler and thickness gauges to check the cylinder head gasket surface.

Replace the cylinder head for any corrosion and/or irregularity.



Inspection cylinder & piston

Use a thickness gauges to check the space between piston rings and piston.

Standard: 0.03mm~0.05mm

Wear Limited: 0.10mm

Replace the piston and rings in set.



Use a thickness gauges to check the piston rings gap.

Standard: 0.15mm~0.35mm

Wear Limited: 0.60mm



Chapter 4 Cylinder Head / Cylinder / Piston

Installation

Remove carbon muck inside ring ditch and piston ring during disassembly.

Do not scratch piston and do not bend piston rings.

Install top-piston ring & 2nd piston ring into piston.

Press the ring on few points after installed into piston to ensure the ring goes deep enough into the ditch

WARNING:

Change whole set of piston ring with genuine parts.

Install the piston to connecting rod.

Notice:

Arrow mark on the top of piston toward to exhaust port.

Compress the piston rings the insert to the cylinder.

Notice:

Make sure the ring gap at the dowel point on the ring groove.

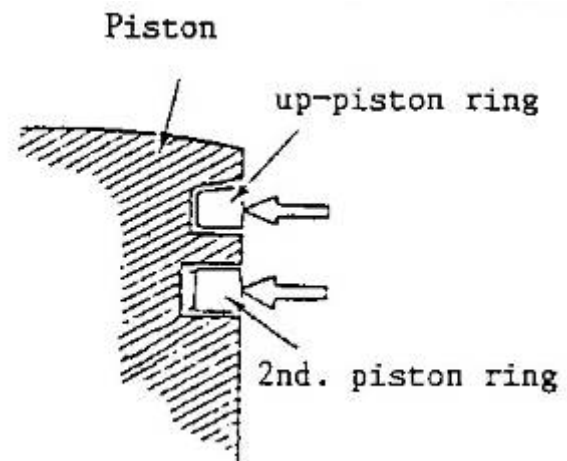
Install cylinder head gasket and cylinder head.

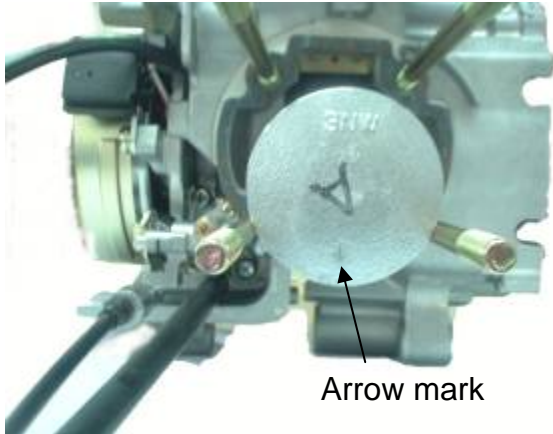
Notice:

Always replace a new cylinder head gasket.

Tighten the cylinder head fix nuts crossed.

Torque valve: 140 kgf.cm (10 lb.ft)





Chapter 4 Cylinder Head / Cylinder / Piston

Install the air shroud and cover in the reverse order of removal.

Notice:

Do not bend the oil tube.



Chapter 4 Cylinder Head / Cylinder / Piston

Lubrication System

Attention of Operation

- Pay attention to avoid dust enter to the interior of engine and motor oil pipe when disassembly the motor oil pump.
- Never disassembly motor oil pump.
- Must draw out the air on the pump if there have air in the pump when disassembly pipe of carburetor.
- After disassembling the motor oil connection tube, must fulfill the motor oil in the connection pipe, then, connect the tube.

Diagnosis of Troubles

Too much smoke, means too much carbon muck piping up the spark plug.

- Poor synchronizing adjust of motor oil pump (too much exhaust).
- Bad quality of engine motor oil.

Over heating

- Poor synchronizing adjustment of motor oil pump (too much exhaust).
- Bad quality of engine motor oil.

Piston burnt

- Short of engine oil, or engine oil pipe is clogged.
- Poor adjustment of motor oil pump (lesser the exhaust).

- There have air in the motor oil pipes system.
- Bad motor oil pump.

Clogging oil from oil tank

- Vent of motor oil case's cap is clogged.
- Filter of motor oil is clogged.

Preparation standard

- Use separating motor oil appointed (use for 2-stroke).
- Content of motor oil tank : 1.1 liter

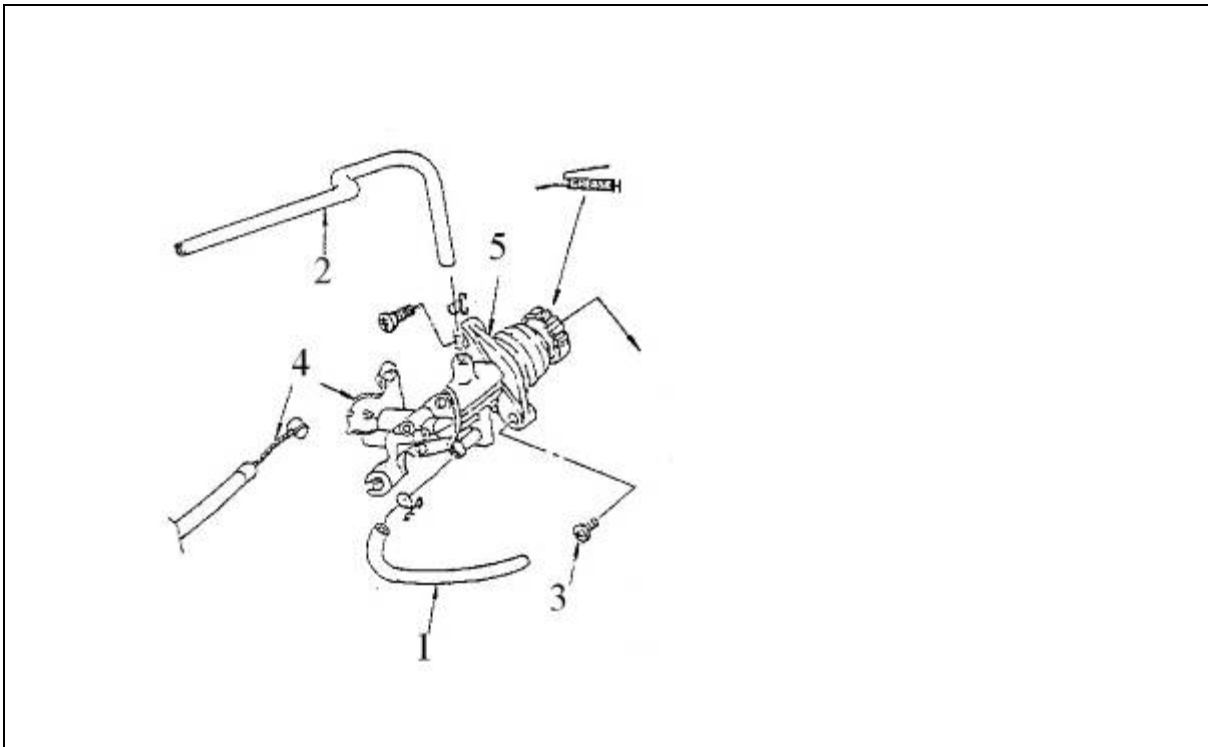
Chapter 4 Cylinder Head / Cylinder / Piston

Dismounting of Oil Pump

- * Remove the R side body cover and helmet box.
- * Remove the cooling fan cover and cylinder head cover.

*** WARNING:**

Operating after cleaning motor oil pump around and no dirt enter into the crankcase.

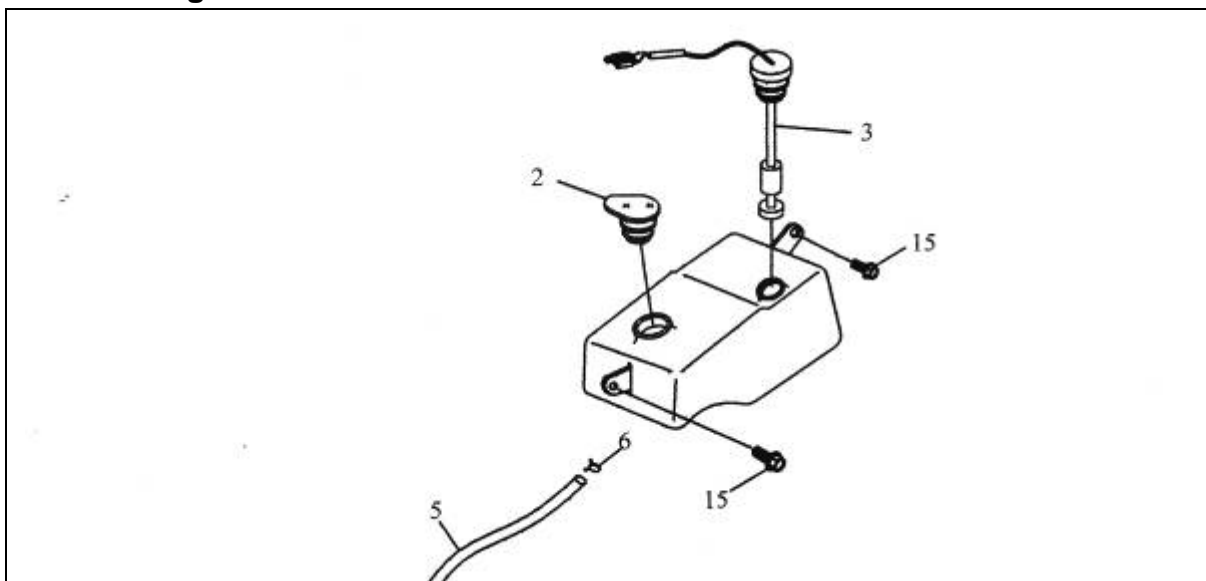


Operation / Parts Name	Q'ty	Remarks
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1	Oil tube from oil tank	1	WARNING: Clogging the pipe with clamp or plug for avoiding fuel flow out.
2	Oil tube to carburetor	1	Remove from both side of motor oil
3	Pan phillips bolt	2	pump.
4	Control cable	1	
Assembly			<ul style="list-style-type: none"> • Assembly with sequence in reverse of disassembly. * WARNING: <ul style="list-style-type: none"> –Smear motor oil to new O ring ,then assembly motor oil pump. –The oil pump must installed correctly into crank case.

Chapter 4 Cylinder Head / Cylinder / Piston

Dismounting of Oil Tank



Operation / Parts Name		Q'ty	Remarks
	Disassembly		WARNING:
2	Oil cap	1	Fill with motor oil with clean container.
3	Oil level sensor	1	
15	Pan phillips bolt	2	
5	Oil tube to oil pump	1	
6	Motor oil pump	1	

	<p>Assembly</p> <p>Operation with sequence in reverse of disassembly.</p>		<p>WARNING: Connect correct oil pipe after assembly, release the air in motor oil pump.</p>
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Chapter 5 CRANK CASE & CRANK SHAFT

Attention of Operation

This chapter explaining the necessary procedure of disassembling crank case due to repair & maintain the crank shaft.

Before disassembling of crank case, please refer related articles of following procedures.

- Disassembly of oil pump
- Disassembly of carburetor
- Disassembly of reed valve
- Removal of engine
- Disassembly of cylinder head and cylinder
- Disassembly of ACG
- Disassembly drive face ass'y

Must disassembly of final reduction mechanism when change the left crank case.

Must use special tool into the inner ring of crank shaft bearing , and pull in crank shaft to assembly when assembly crank case & crank shaft , put new bearing into crank case, and put into new oil seal after assembling crank case.

Diagnosis of Troubles

Noise of Engine

Damaged of the crankshaft bearing.

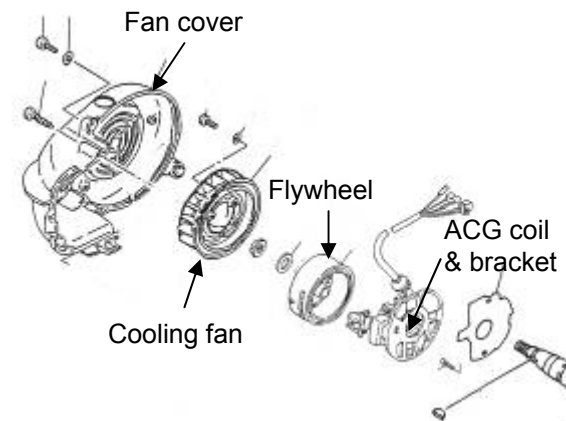
Damaged of needle bearing of connecting rod.

Chapter 6 CRANK CASE & CRANK SHAFT

Disassembly of ACG

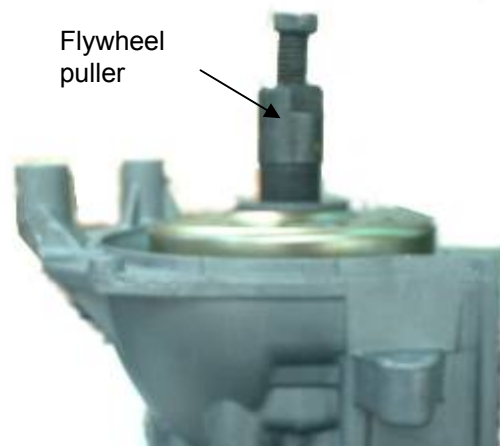
Remove fan cover air shroud.

Remove cooling fan



Loosen the flywheel fix nut

Use special puller to remove the flywheel.



Disassembly oil pump

Remove oil drive gear cover gasket.

Loosen two pump fixing bolts

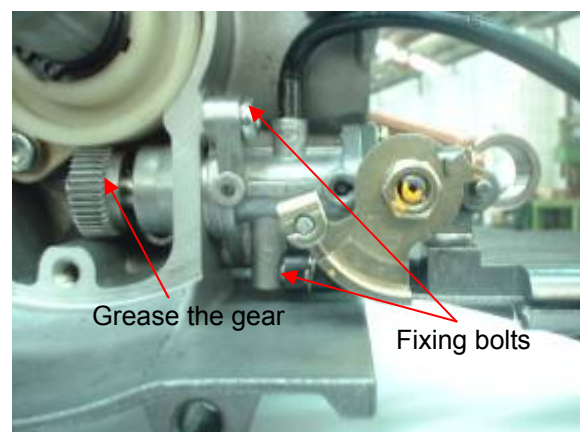
Pull out the oil pump.

Installation

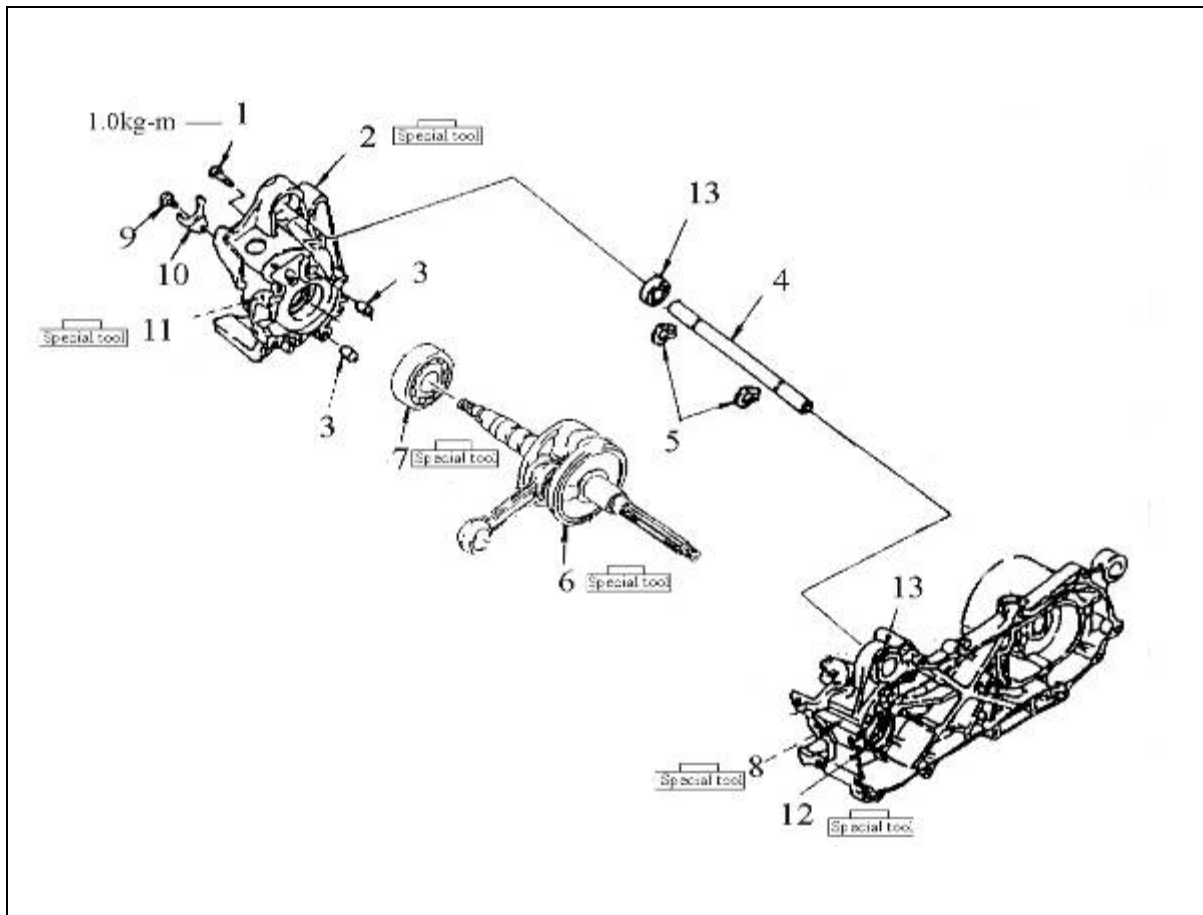
Install the in the reverse order of removal.

Notice:

Grease oil pump and drive gears before covering the gasket.



Chapter 6 CRANK CASE & CRANK SHAFT



Operation / Parts name		Q'ty	Remark
Disassembly			
1	Hex socket bolt	6	
2	Right crank shaft case	1	
3	Dowel pin	2	
4	Fix shaft of crank shaft case	1	
5	External circle clip	2	
6	Crank shaft	1	
7	Radial ball bearing (Right)	2	
8	Radial ball bearing (Left)	1	
9	Hex socket bolt	1	
10	seal bracket	1	
11	Right oil seal	1	
12	Left oil seal	1	
13	Radial ball bearing	2	
Assembly			
	13→1		

Chapter 6 CRANK CASE & CRANK SHAFT

Disassembly of Crank Case

Loosen all fixed bolts on crank case.
Install the puller on right crank case,
separate the R. crank case and L. crank
case.

: Crank case puller (TLJT-03)

Install the puller on left crank case,
remove the crank shaft from the crank
case.

: Crank case puller (TLJT-03)

Notice:

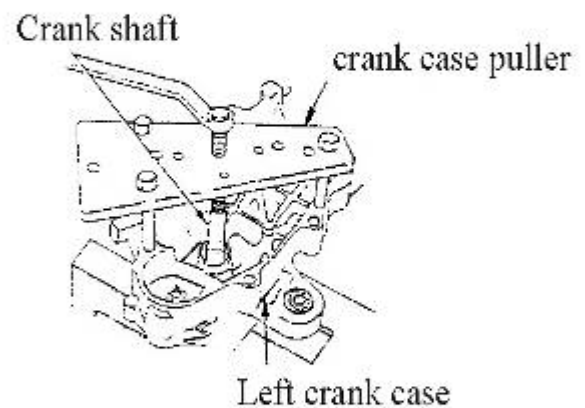
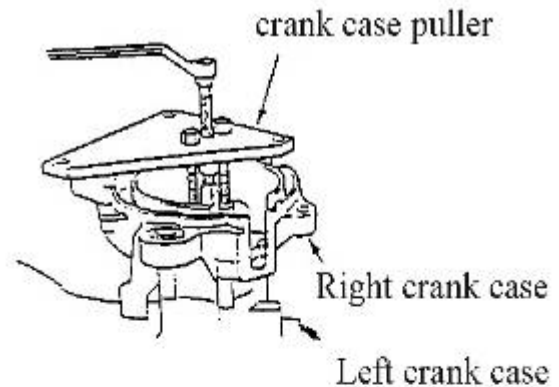
Don't knock the crank shaft when
disassembling.

Use the bearing puller to remove the
crankshaft bearing from crank shaft, then
remove the R/L crank case.

: Bearing puller (TLJT-00)

Notice:

Must remove the oil seal when
separate the crank case, and never use
the old oil seal.



Chapter 6 CRANK CASE & CRANK SHAFT

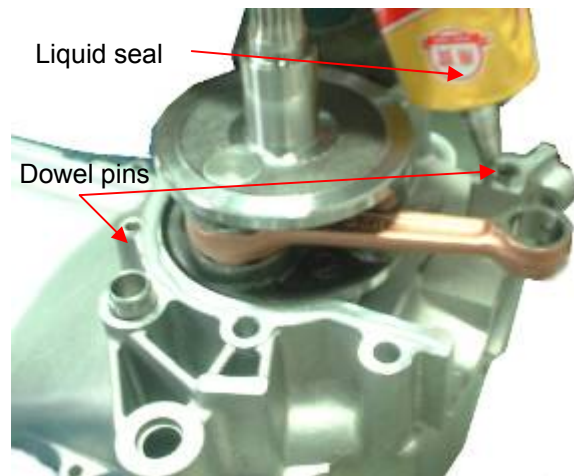
Assembly of Crank Case

Clean the crank case with gasoline, and check the each part whether damaged or crack.

Notice:

Smear of oil on sliding surface of each shaft in crank case after checking.

Cleaning the washer dust of joint face, and amend the part damage with oil stone.



Put new crank shaft into right crank case.

Install the dowel pins in the joint face of left crank case.

Apply liquid seal in joint surface of left crank case.

Put crank shaft assembly into left crank case.



Notice:

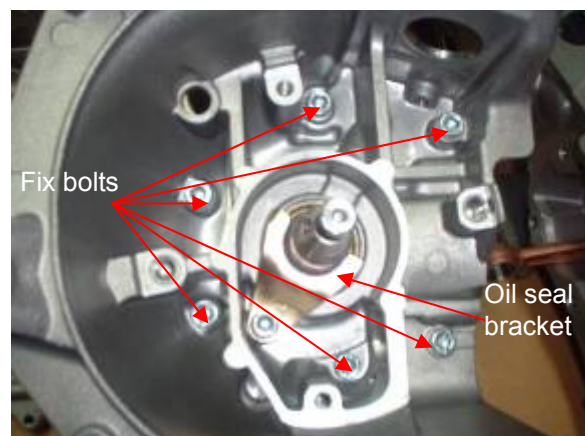
Smear the 2-stroke oil to main bearing and big end of connecting rod.

Note the position of connecting rod.

Install the right crank case.

Tighten all fix bolts in specify torque.

Put left oil seal into L. crank shaft case, surface depth under 1.0 mm.



Install the new R. oil seal to crank case.

Install oil seal bracket and tighten the bracket fixing bolt.

Chapter 6 CRANK CASE & CRANK SHAFT

Assembly of ACG

Install oil pump drive gear.

Install oil pump

Install new cover gasket.

Connect oil tubes and pump cable.

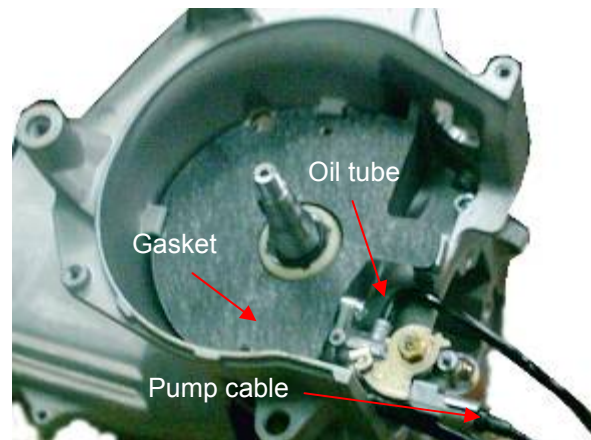
Notice:

Grease oil pump and drive gears before covering the gasket.

Install generator bracket and coil.

Insert the ACG wire to R crank case.

Install flywheel and cooling fan.



Notice:

After install piston, cylinder and cylinder head then install cylinder air shroud and fan cover.



Chapter 6 Transmission

Attention of Operation

Don't make greases stick to surface of transmission belt or belt plate.

Otherwise, the efficiency of power transmission will be lowered by skid.

Don't switching the starter when remove the front cap of left crankshaft case.

Diagnosis of Trouble

Vehicle does not move after engine start up

Drive belt wear-out

Drive face comp. damage

Clutch lining wear-out

Driven ass'y spring defect

Power insufficient

Drive belt wear-out

Driven ass'y spring defect

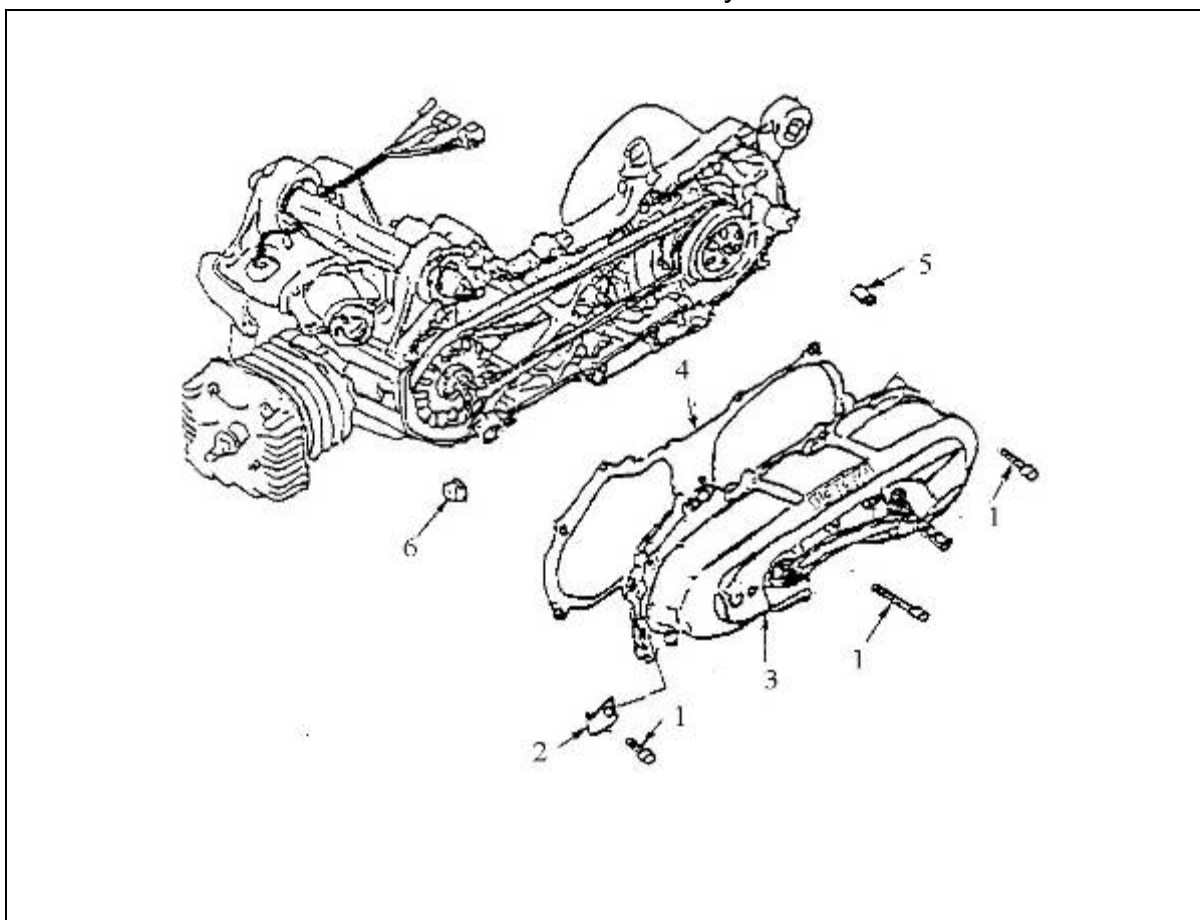
Drive face dirty or oily

Weight roller wear-out

Chapter 6 Transmission

Disassembly of Left Crankcase Cover

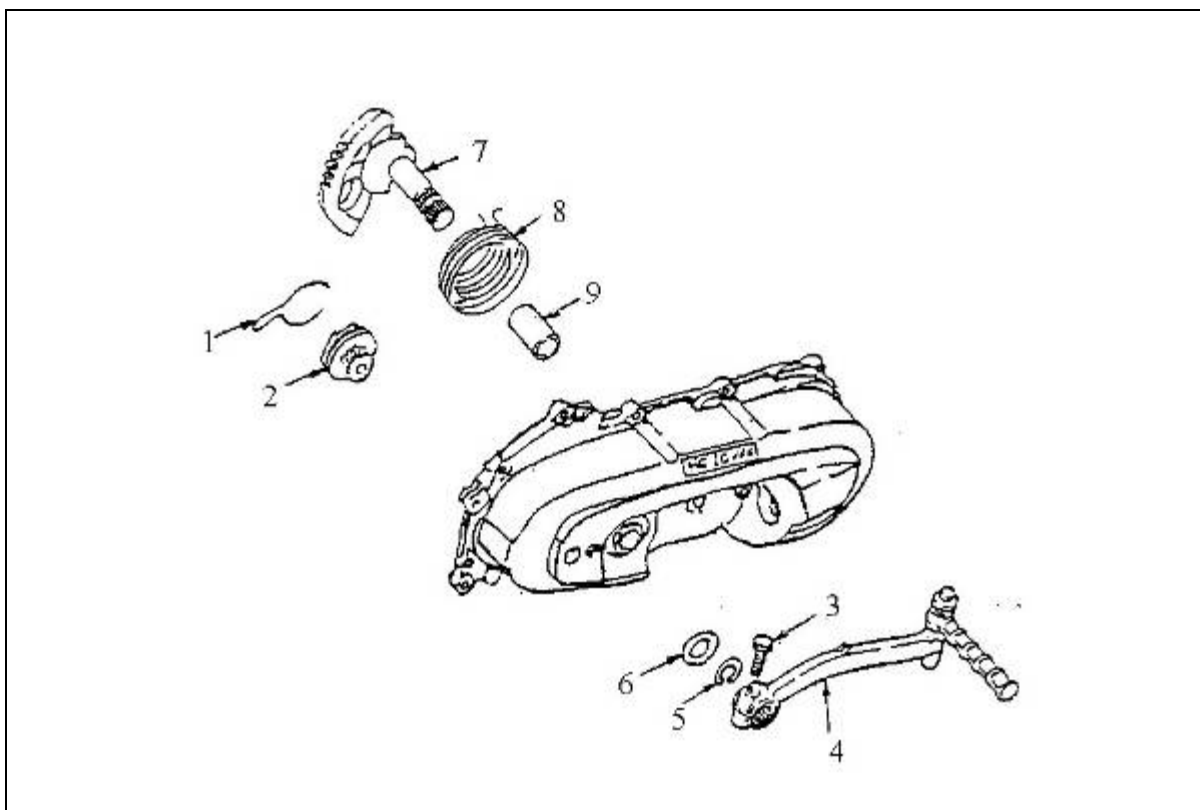
Remove air cleaner first before start to disassembly CVT cover.



Operation / Parts name		Q'ty	Remark
Disassembly			
1	Hex socket bolt	12	WARNING: Check the air cleaner whether worsen or harm.
2	Carburetor tube bracket	1	
3	Left crank case cover	1	
4	Crankcase cover gasket	1	
5	Dowel pin	2	
6	Grommet	1	
Assembly 6→1			Operation with sequence in reverse of disassembly.

Chapter 6 Transmission

Disassembly of Kick Starter



Operation / Parts name		Q'ty	Remark
Disassembly			
1	Kick pinion spring clip	1	WARNING: Rotating pedal kick crank and remove the assembly.
2	Kick pinion	1	
3	Hex washer face bolt	1	
4	Kick crank	1	
5	External ring clamp	1	
6	Plain washer	1	
7	Starting shaft ass'y	1	
8	Starting shaft reset spring	1	
9	Bushing	1	
Operation / Parts name		Q'ty	Remark
Assembly			
9	Washer	1	WARNING: Unable into main shaft fix position when inside and outside reset spring overlap, use flat-driver will inside · outside spring part, then press main shaft.
8	Starting shaft reset spring	1	
7	Starting shaft ass'y	1	
6	Plain washer	1	
5	External ring clamp	1	
4	Kick crank	1	
3	Hex washer face bolt	1	
2	Kick pinion	1	
1	Kick pinion spring clip	1	

Chapter 6 Transmission

Check of Starting Shaft & Kick Pinion

Check the wear and/or damaging of starting shaft and gear.

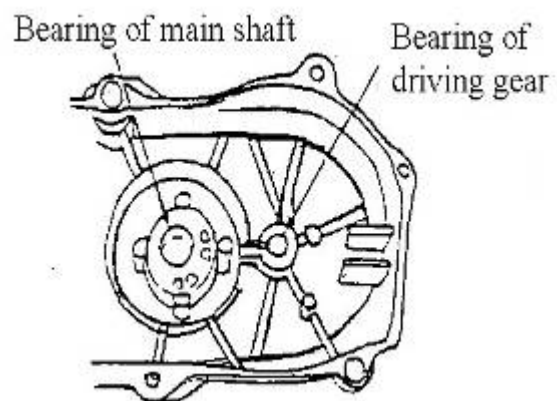
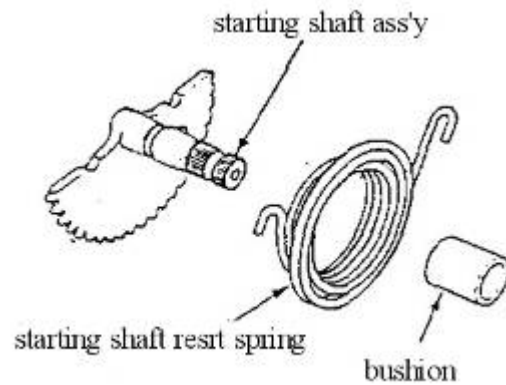
Check the tightness and/or damage of starting shaft reset spring.

Check the wear and/or damage of bush.

Check the wear and/or damage of kick pinion.

Check the wear & damage of kick pinion spring clip.

Check the wear & damage of starting shaft, bearing and driving gear.

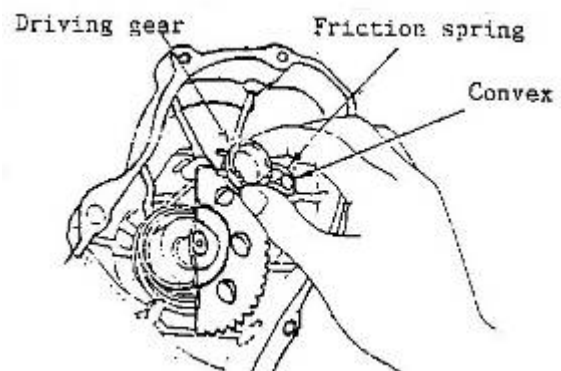


Installation of Starting Shaft & Kick Pinion

Setting kick starting shaft first.

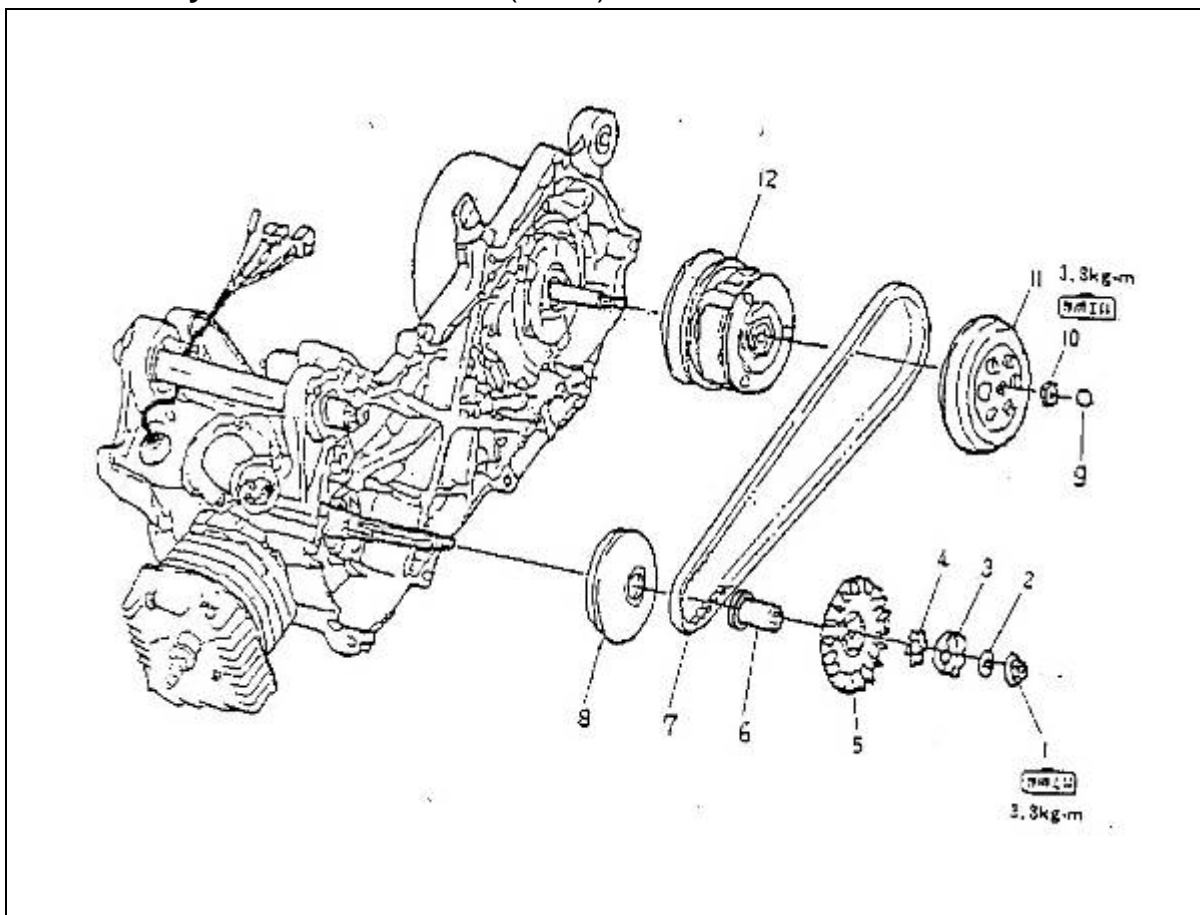
Turn starting shaft spring clip on crank case convex and assembly of kick pinion to its position.

Rotated the starting shaft, let starting shaft gear and kick pinion conjoin.



Chapter 6 Transmission

Disassembly of Left Crank Case (→7-2)



Operation / Parts name		Q'ty	Remark	
Disassembly				
1	Hex washer face bolt	1	WARNING: Don't hurt transmission belt.	
2	Cone spring washer	1		
3	One-way clutch	1		
4	Clamp washer	1		
5	Primary fixed sheave	1		
6	Bushing	1		
7	V-Belt	1		
8	Primary sliding slot wheel	1		Separation / assembling (→ 7-7)
9	Oil ring	1		
10	Hex nut	1		
11	Covering of clutch	1		Separation / assembling (→ 7-8)
12	Drive face ass'y	1		
Assembly			• Operation with sequence in reverse of disassembly.	
12→1				

Chapter 6 Transmission

Disassembly Driver and Driven Pulley

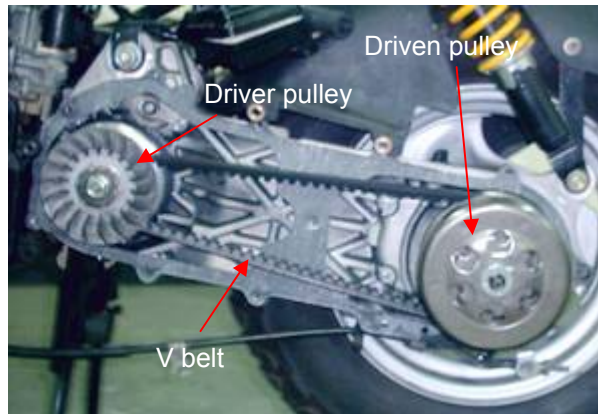
Pulley

Remove driver and driven pulley fixed nuts.

Remove driver pulley fix sheave.

Remove driven pulley ass'y with V belt.

Pull up driven pulley sliding slot from driven pulley ass'y to remove the V belt.

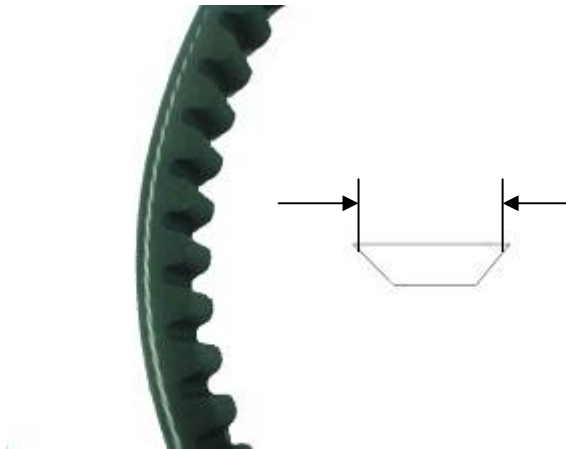


Inspection

Measure the width of V belt.

Standard: 17.7 mm

Wear Limited: 16.6 mm



Measure the inside width of clutch cover.

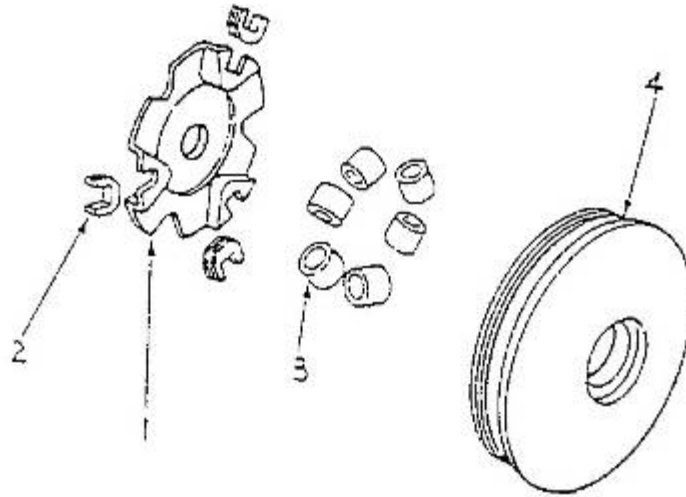
Standard: 112.0 mm

Wear Limited: 112.5 mm



Chapter 6 Transmission

Disassembly of Sliding Driving Disc



Operation / Parts name		Q'ty	Remark
Disassembly			
1	Cam plate	1	
2	Cam plate sliding	3	
3	Weight roller	6	
4	Primary sliding slot wheel	1	
Assembly 4→1			• Operation with sequence in reverse of separating.

Chapter 6 Transmission

Disassembly Driver Pulley Sliding Ass'y

Remove driver pulley sliding ass'y from driver shaft.

Detach the bushing, cam plate and weight roller from driver pulley sliding ass'y.



Inspection

Check the bushing sliding smoothly or not.



Measure the width of weight roller.

Standard: 15.0 mm

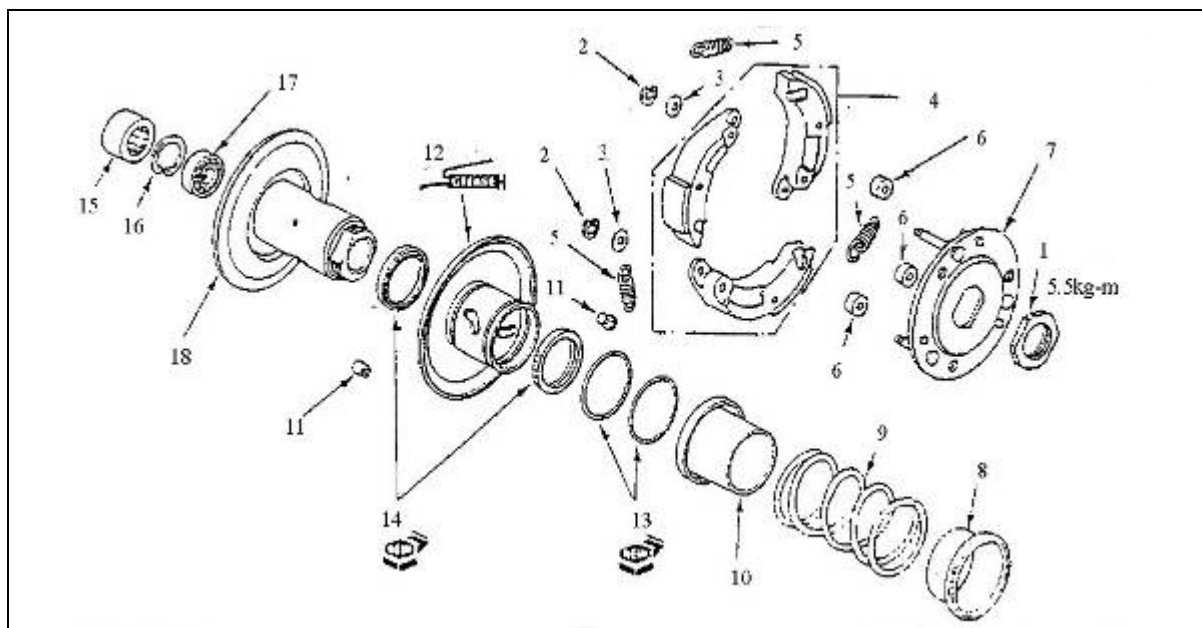
Wear Limited: 14.5 mm

Replace all six roller at same time.



Chapter 6 Transmission

Disassembly of Clutch / Transmission Belt Disc



Operation / Parts name	Q'ty	Remark
Disassembly Clutch		
1 Nut	1	
2 C retaining ring	3	
3 Washer	3	
4 Clutch weight set	3	
5 Clutch weight spring	3	
6 Rubber buffer	3	WARNING: Must replacing when the buffer have damage, hardening and distortion.
7 Driving plate of clutch Drive face ass'y	1	
8 Axle ring of spring		
9 Compression spring		
10 Secondary spring seat		
11 Guide pin		
12 Secondary sliding slot wheel		
13 Oil ring		
14 Oil seal		
15 Needle bearing		
16 Internal circle clip		
17 Radial ball bearing		
18 Secondary fix slot wheel		
Assembly 18→1		• Operation with sequence in reverse of separating.

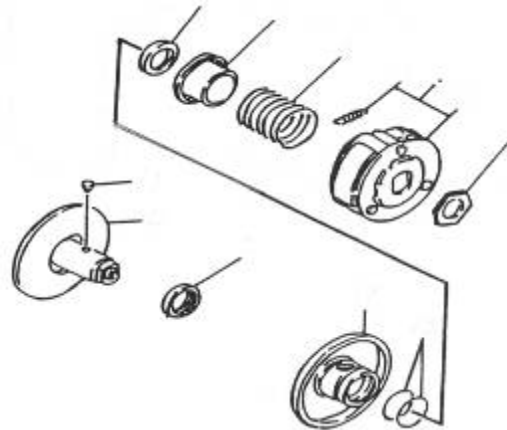
Chapter 6 Transmission

Disassembly Driven Pulley Sliding

Ass'y

Notice:

Use a bench pliers to fix the sliding ass'y before loosen nut.



Inspection

Measure the thickness of clutch pads.

Standard: 4.0 mm

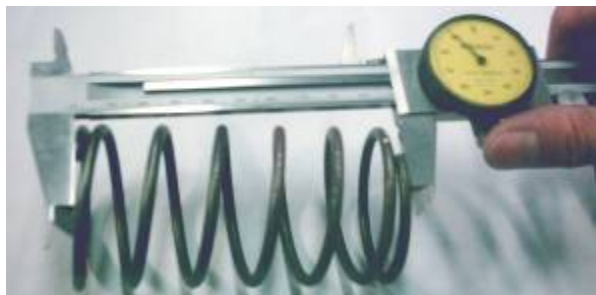
Wear Limited: 2.5 mm



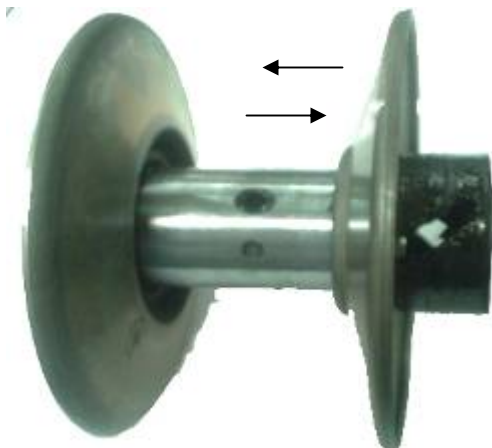
Measure the length of clutch reducer spring.

Standard: 114 mm

Wear Limited: 100 mm



Check the sliding of slot wheel.



Chapter 7 Final Transmission Mechanism

Attention of Operation

This chapter explaining the final reduction mechanism maintenance.

The operating can be done that engine in the vehicle.

For no hurting case cap, changing the bearing of left crank shaft case after removing the rear break of engine.

Use professional tool to change driving shaft and pull out the shaft after fixing inner ring of bearing.

Diagnosis of Trouble

Engine starts but vehicle does not move.

Transmission gears broken.

Transmission gears burns out.

Operate of noise

Abrasion, wore and teeth damage of gear

Bearing wore and loosened.

Gear oil leaking

Too much gear oil filled.

Oil seal wear out or damage.

Chapter 7 Final Transmission Mechanism

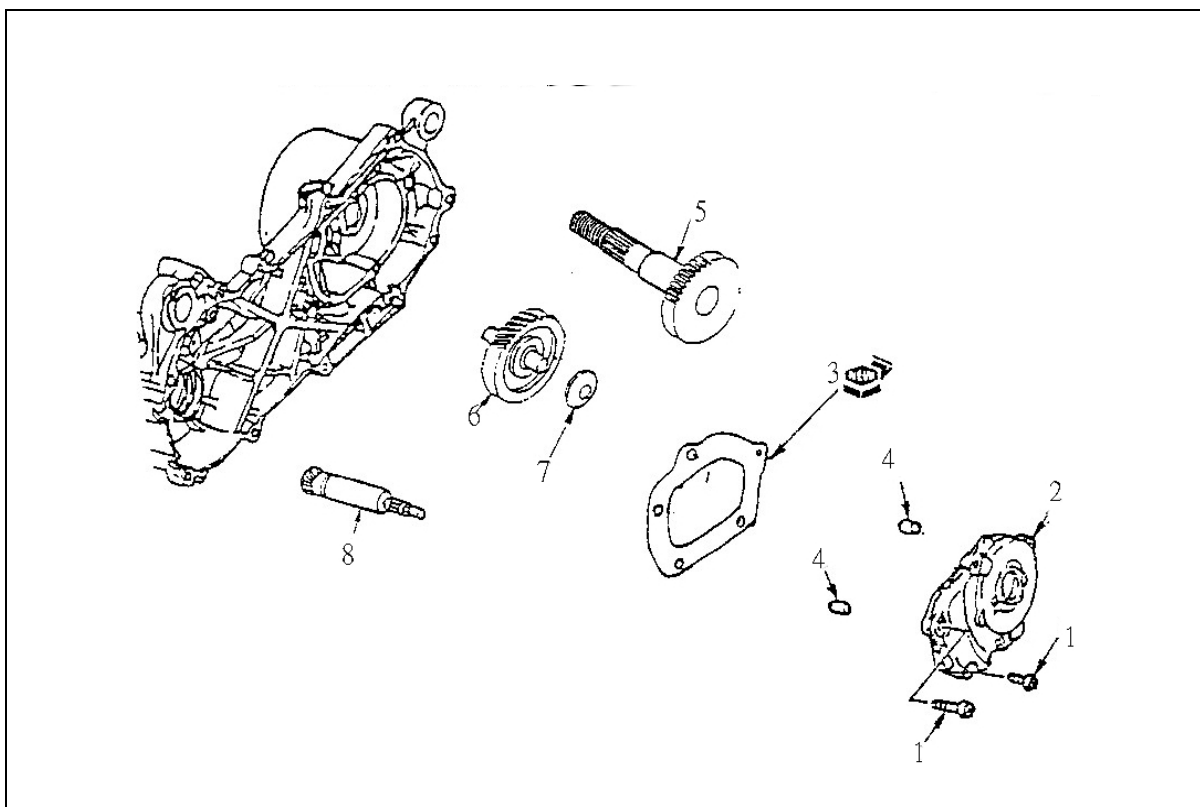
Disassembly of primary drive gear / final reduction mechanism

Disassembly of rear tire(→11-2).

Disassembly of clutch / drive face(→7-6).

Notice:

First drain the oil of transmission.



Operation / Parts name		Q'ty	Remark
Disassembly			
1	Bolt	5	<ul style="list-style-type: none"> • Check the wear & damage of shaft and gear. Change new one. (→8-3)
2	Mission cover	1	
3	Washer	1	
4	Dowel pin	2	
5	Drive axle	1	
6	Main axle comp.	1	
7	Plain washer	1	
8	Primary drive gear	1	
Assembly			<ul style="list-style-type: none"> • Operation with sequence in reverse of disassembly.
8→1			

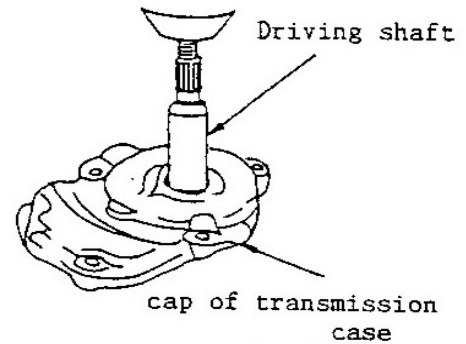
Chapter 7 Final Transmission Mechanism

Change the Driving Shaft

Remove the driving shaft from mission cover.

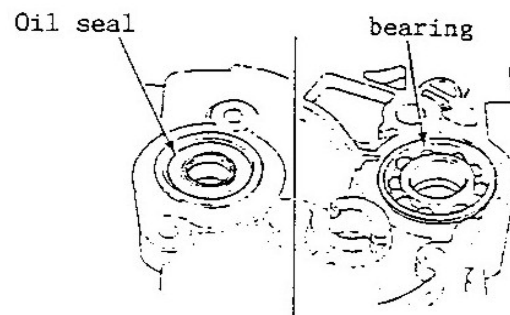
Notice:

Don't damage joint face of mission cover.



Remove the oil seal of primary drive gear.

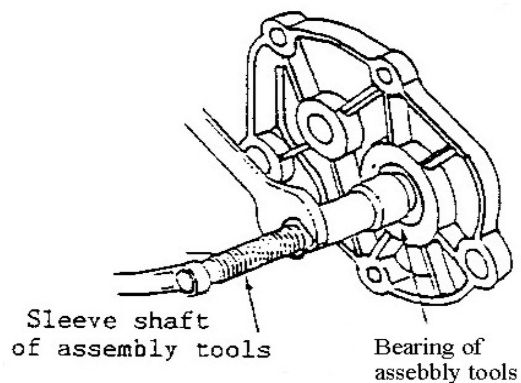
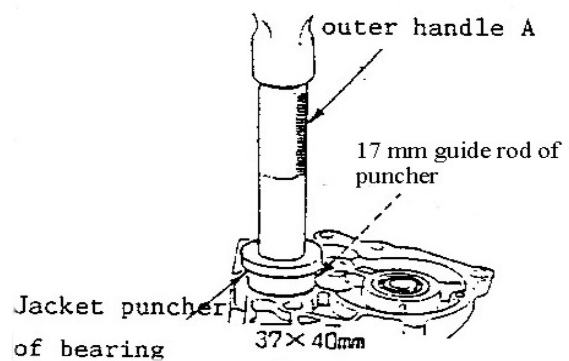
Remove the bearing.



Install the new bearing in the mission cover.

Notice:

Install the bearing with facing outside.



Chapter 8 Fuel System

Attention in Operation

Fuel is flammable and explosive under certain conditions. Ensure work area is well ventilated. Do not smoke or allow open flames or sparks in the vicinity.

When draining a fuel tank or whenever a fuel line is disconnected, obstruct line with a hose pincher or equivalent device.

Pay attention to the parts which using gasoline.

Pipes & cable must be in accordance with the location directed of wiring diagram.

Release air in motor oil pump when remove motor oil pipe.

Diagnosis of Trouble

No starting

No gasoline in tank

Gasoline blocked

Too much fuel in cylinder

Air filter is clogged

Idle speed unstable or carburetor rotation not smooth

Poor idle speeds adjust of carburetor.

Low compression pressure

Poor ignition system

Bad adjustment of air adjusting screw on carburetor

Air filter is clogged

Poor auto side-plunger on carburetor

Idle speed nozzle is clogged

Mixed air too rare

- Nozzle of carburetor is clogged
- Gasoline filter is clogged
- Vent of gasoline tank is clogged
- Gasoline pipe cranked, broke, clogged
- Poor action of valve of float chamber
- Gasoline level too low
- Air pipe is clogged

Mixed air too rich

- Poor action of valve of float chamber
- Gasoline level too high
- Air nozzle is clogged
- Auto side-plunger poor

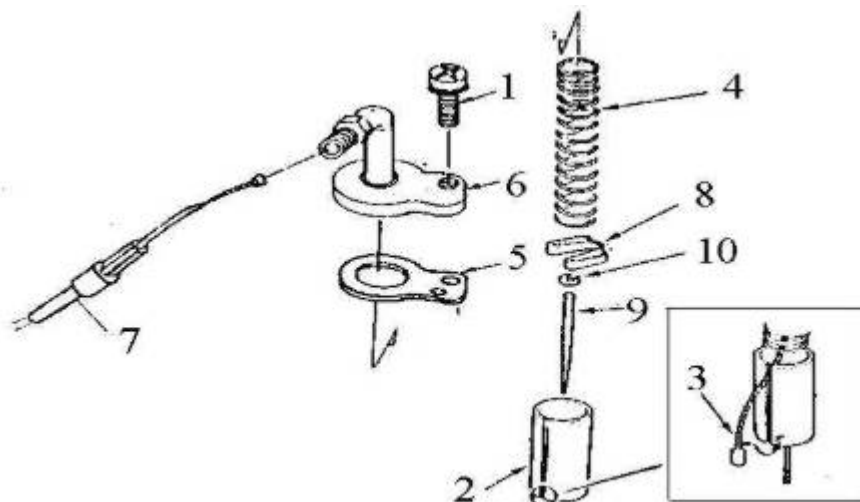
Chapter 8 Fuel System

Disassembly / Assembly Valve of Throttle

Disassemble of left body covering

Adjust the free play of throttle

Adjust of reverse rotation of idle speed



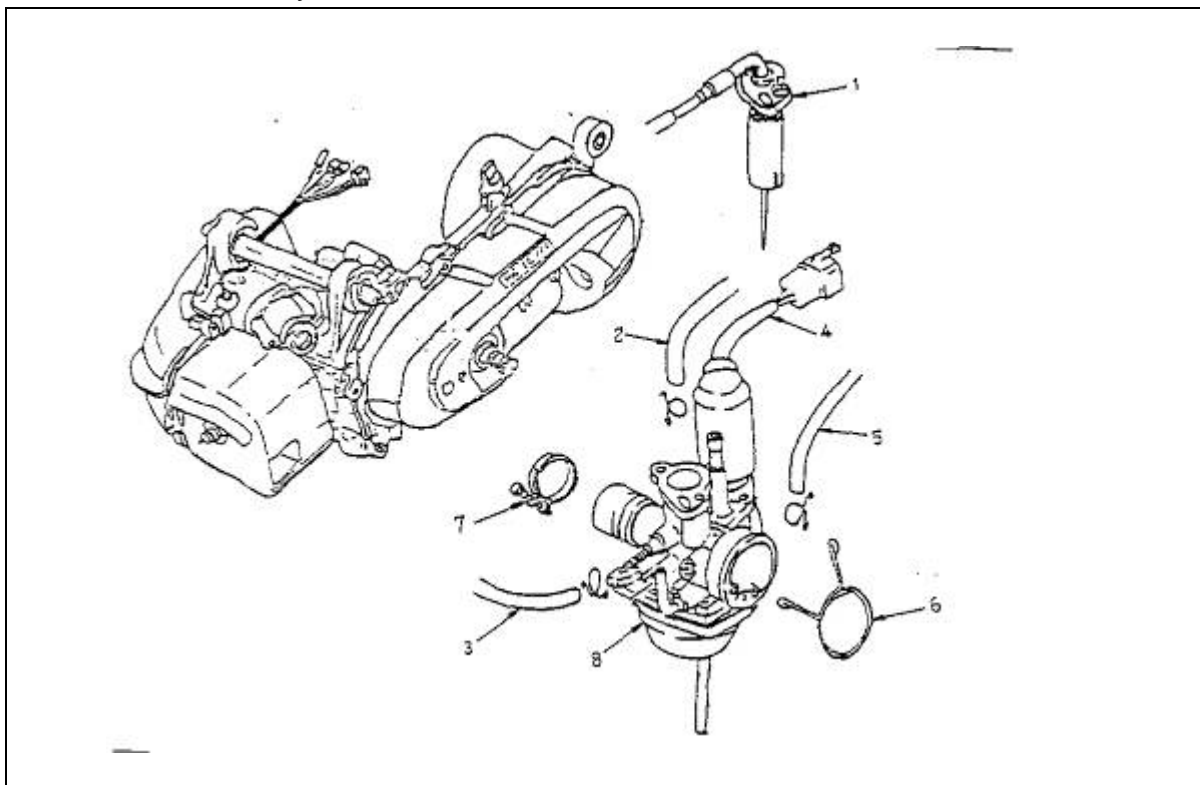
Operation / Parts Name		Q'ty	Remarks
Disassembly			
1	Pan phillips bolt	2	WARNING:
2	Throttle valve	1	Loosing top cap of carburetor, and removing.
3	Throttle cable	1	
4	Throttle valve spring	1	
5	Carburetor washer	1	WARNING:
6	Throttle cover	1	Remove from guide wire of throttle valve.
7	Sealing set	1	
8	Retainer	1	
9	Needle	1	
10	Clamp	1	
Assembly			
10	Clamp	1	WARNING:
9	Needle	1	Assembly of needle nozzle.
8	Retainer	1	WARNING:
7	Sealing set of guide wire	1	Assembly of throttle valve.
6	Throttle cover	1	WARNING: Assembly of throttle cable.
5	Washer	1	WARNING:
4	Throttle valve spring	1	Aim the ditch of throttle valve to chamber then install throttle valve into carburetor.
3	Throttle cable	1	
2	Throttle valve	1	Lock the throttle cover.
1	Pan phillips bolt	1	

Chapter 8 Fuel System

Disassembly of Carburetor

Remove the air cleaner ass'y .

Remove the left body cover



Operation / Parts Name		Q'ty	Remarks
Disassembly			
1	Throttle valve set	1	
2	Gasoline pipe	1	
3	Motor oil joint	1	
4	Starter wire of carburetor	1	
5	Vacuum pressure tube	1	
6	Clip	1	
7	Intake manifold hose clamp	1	
8	Carburetor	1	
Assembly			
	8→1		WARNING: Don't let dust enter into carburetor.
3	Motor oil joint		WARNING: Release air.

Chapter 8 Fuel System

Disassembly / Assembly Carburetor

Disassemble of carburetor.

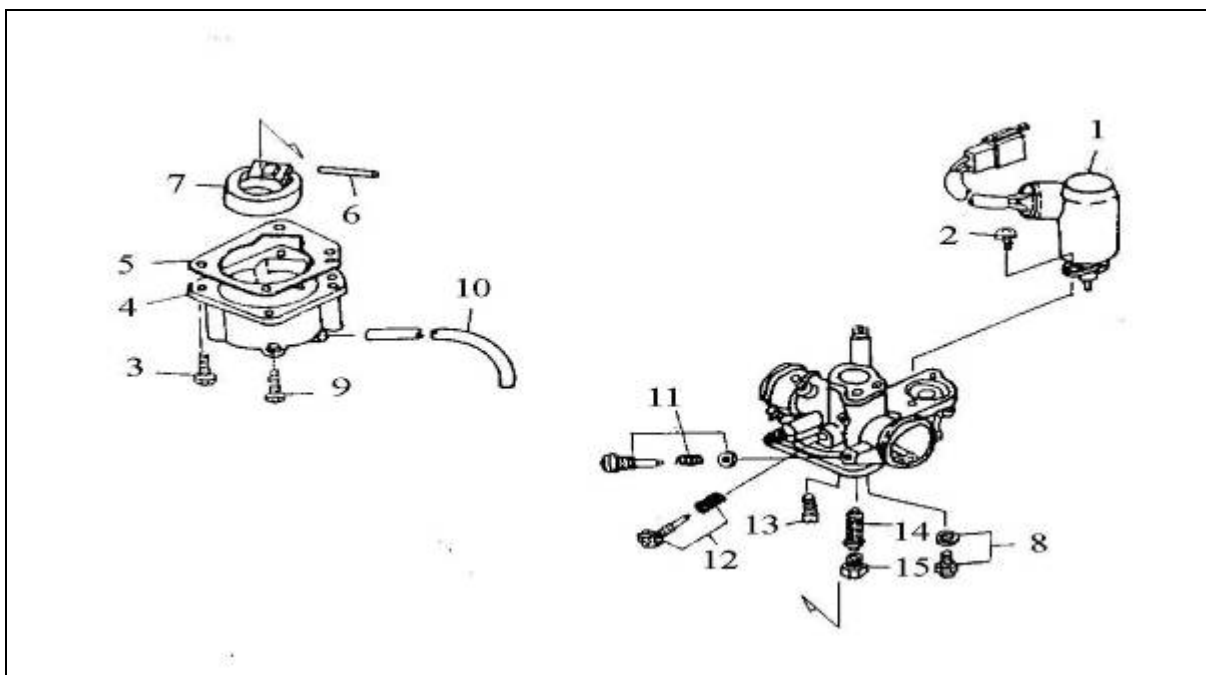
Adjust the idle speed.

Adjust the air adjust screw.

WARNING:

Fuel is flammable and explosive under certain conditions. Ensure work area is well ventilated. Do not smoke or allow open flames or sparks in the vicinity.

Before disassembling, loose oil-draining screw, draining out the gasoline from carburetor.



Operation / Parts Name	Q'ty	Remarks
Disassembly		
Plunger starter		
1 Pan phillips bolt	1	
2 Start plug screw	1	
Float Chamber		
3 Pan phillips bolt	4	
4 Float chamber	1	
5 Float chamber gasket	1	
6 Float pin	1	
7 Float	1	
8 Needle valve	1	
9 Drain plug	1	
10 Over flow tube	1	

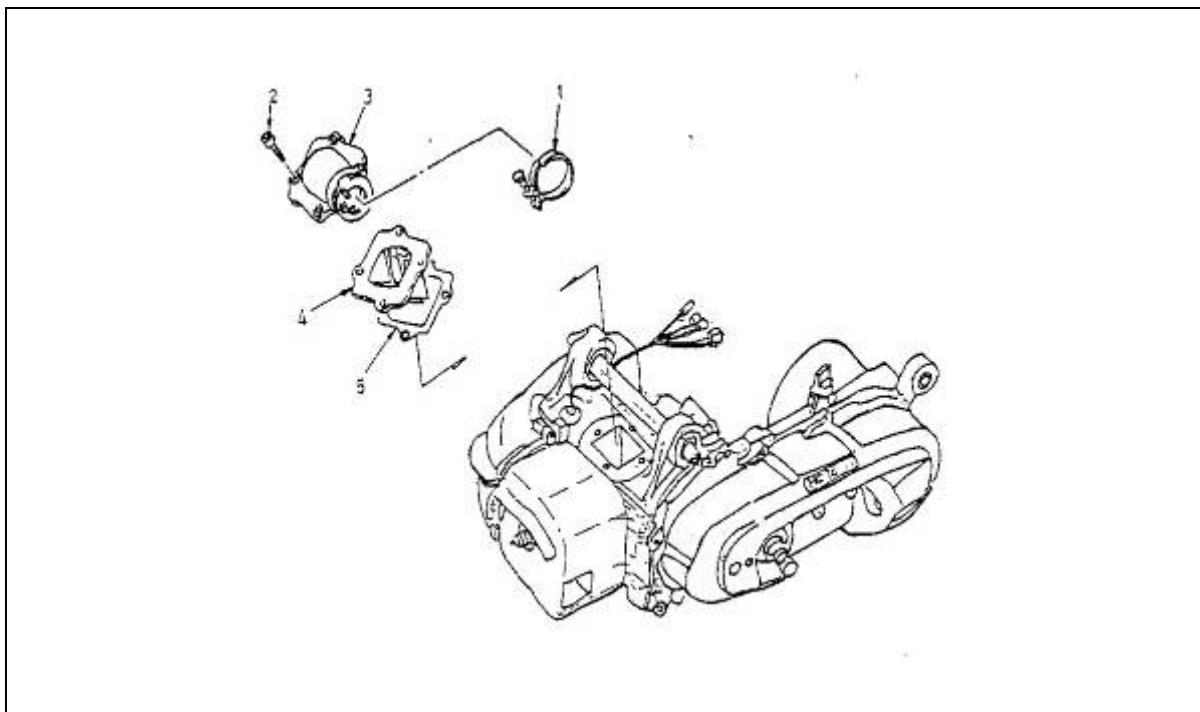
	Carburetor Ass'y		
11	Air adjust screw set	1	
12	Throttle screw set	1	WARNING:
13	Pilot jet	1	Must confirm rotation location before disassembling, not locking too much
14	Needle nozzle	1	avoid to hurt seat face.
15	Main nozzle	1	
	Assembly		
	15→1		WARNING:
	Install carburetor in reverse order of disassembly.		Use high pressure air clean each way of carburetor.
11	Air adjust screw set		WARNING:
			Must adjust air screw when changing air screw and carburetor ass'y.

Chapter 8 Fuel System

Disassembly of Inlet Valve

Disassemble of body cover.

Disassemble of carburetor.



Operation / Parts Name		Q'ty	Remarks
Disassembly			
1	Intake manifold hose clamp	1	
2	Hex washer face bolt	4	
3	Intake manifold	1	
4	Reed valve ass'y	1	
5	Reed valve gasket	1	
Assembly			
5→1			Assembling with sequence in reverse of disassembly.
4	Reed valve ass'y		WARNING: Using new washer , the washer must aim at hole of reed valve.
5	Reed valve gasket		WARNING: confirm no secondary air entering after installing.

Chapter 8 Fuel System

Disassembly of Fuel Tank

WARNING:

When draining a fuel tank or whenever a fuel line is disconnected, obstruct line with a hose pincher or equivalent device.

Shall be wiped off when fuel overflowed.

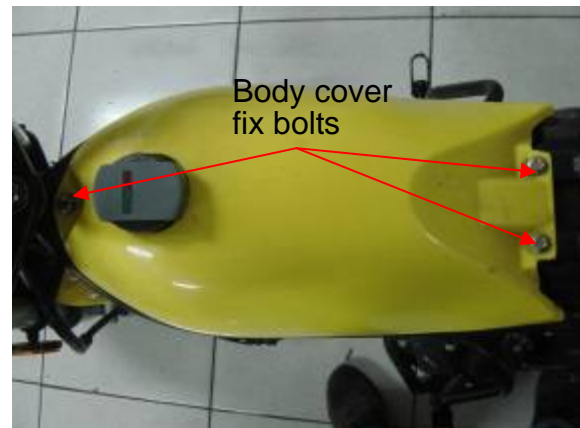
Disassemble of body cover.

Disassemble of fuel tank fix bolts

Disconnecting fuel tube on fuel cup and remove fuel tank

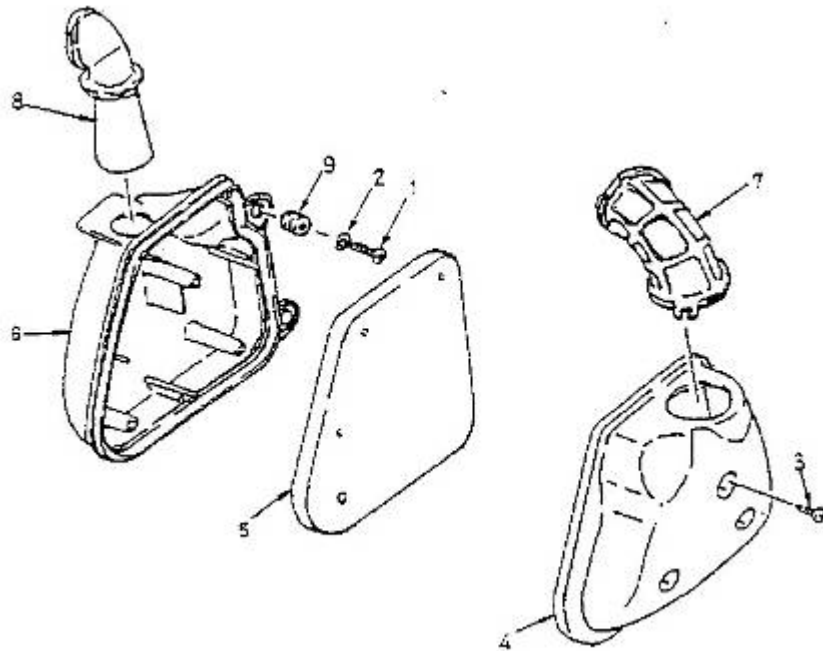
Installation

Install fuel tank in reverse order of disassembly.



Chapter 8 Fuel System

Disassembly of Air Cleaner



Operation / Parts Name		Q'ty	Remarks
Disassembly			
1	Hex socket bolt	2	
2	Plain washer	1	
3	Self-tapping screw	3	
4	Air cleaner case cap	1	
5	Air cleaner element	4	
6	Air cleaner case	1	
7	Air cleaner joint	1	
8	Cleaner guide pipe	2	
9	Grommet	1	
Assembly			
9→1			Install air cleaner in reverse order of disassembly.

Chapter 9 Front Wheel / Front Suspension / Front Brake

Attention of Operation

Support the frame body steady before remove the front wheel.

Don't invert the front wheel when installing.

Diagnosis of Trouble

Heavy steering movement

Over tied of the steering ball race

Steel ball inside ball race broken

Tire pressure insufficient

Steering handle not straight

L/R suspension not balanced

Front fork banded

Front tire axle banded, tire wear-out

Brake efficiency abnormal

Brake lining wear-out

Brake pads adjust not correct

Brake disc attrition

Tire wear-out

Front wheel shaking

Front rim defected

Loose of front rim bearings

Tire defect

Bad adjustment of the front axle

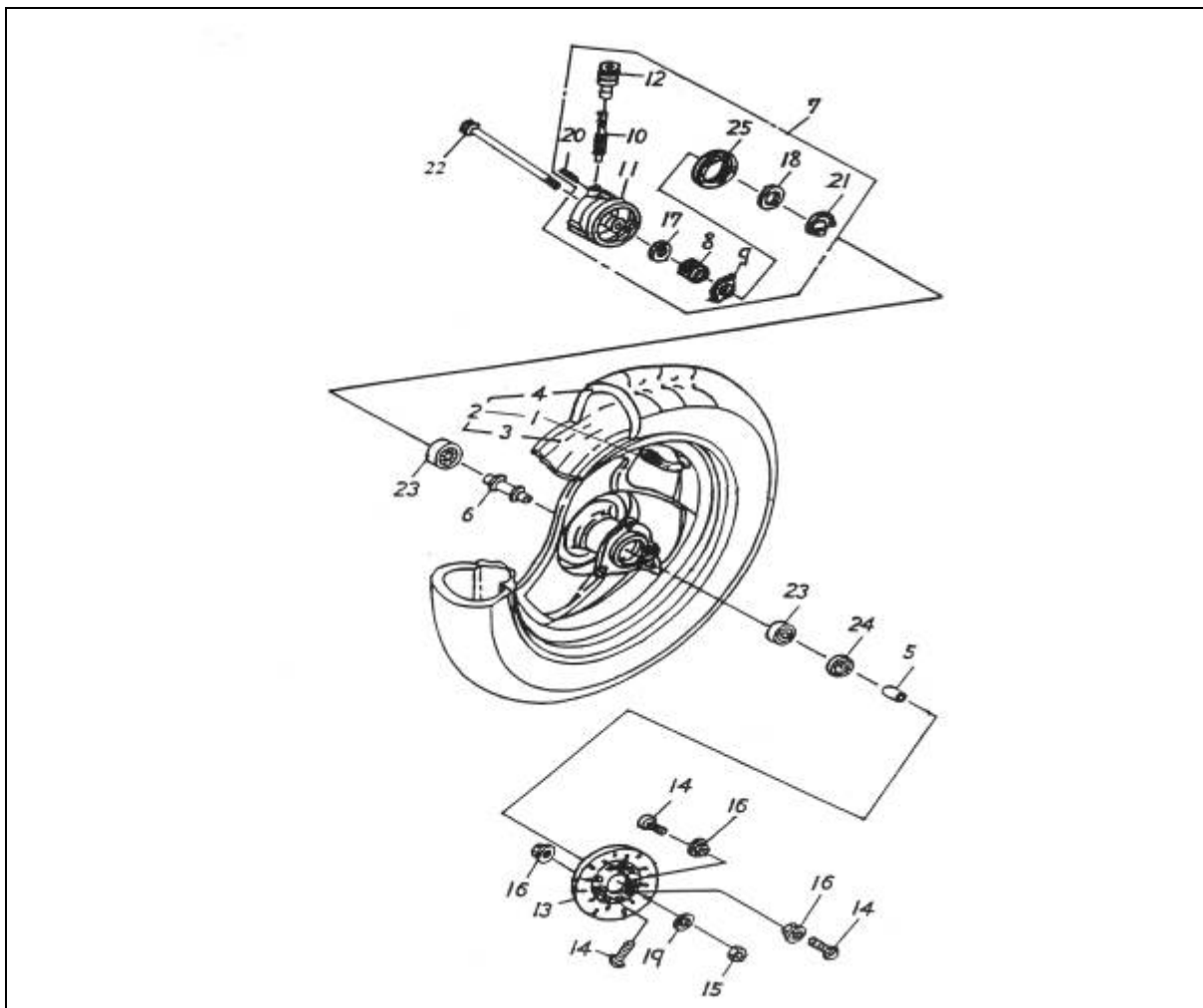
Poor Brake

Bad adjustment of brake

Wear the brake pad

Chapter 9 Front Wheel / Front Suspension / Front Brake

Disassembly / Assembly of Front Wheel

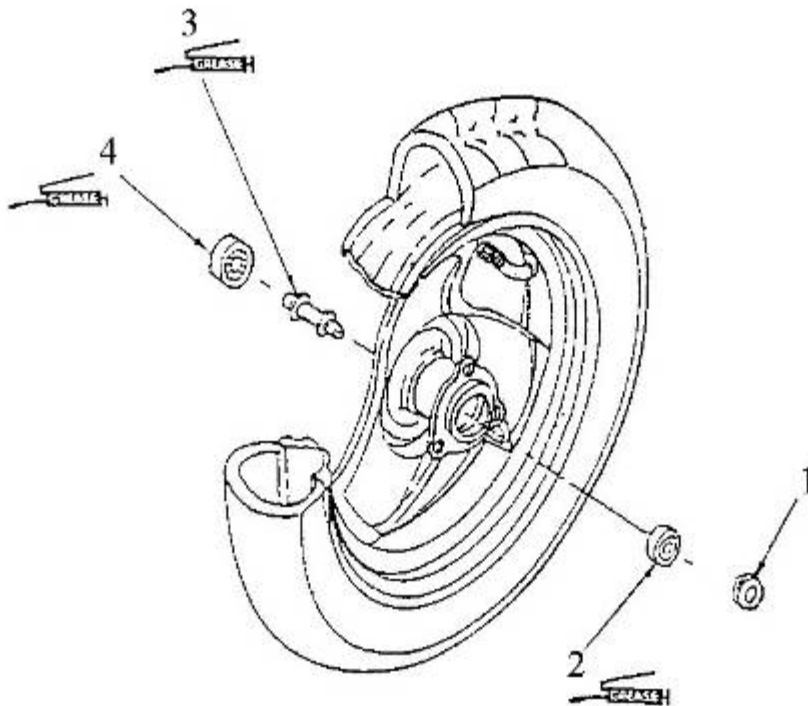


Operation / Parts name	Q'ty	Remarks
Disassembly of Front Wheel		
1 Nut nylon	1	
2 Speedometer gear	1	
3 Hex washer face bolt	1	
4 Front collar	1	
5 Front fender	1	
6 Front brake disc	1	
Assembly 6→1		Operation with sequence in reverse procedure. WARNING: When assembling of right fork, shall be aimed at convex of speedometer gear.

Chapter 9 Front Wheel / Front Suspension / Front Brake

Assembly / Disassembly of Front Rim

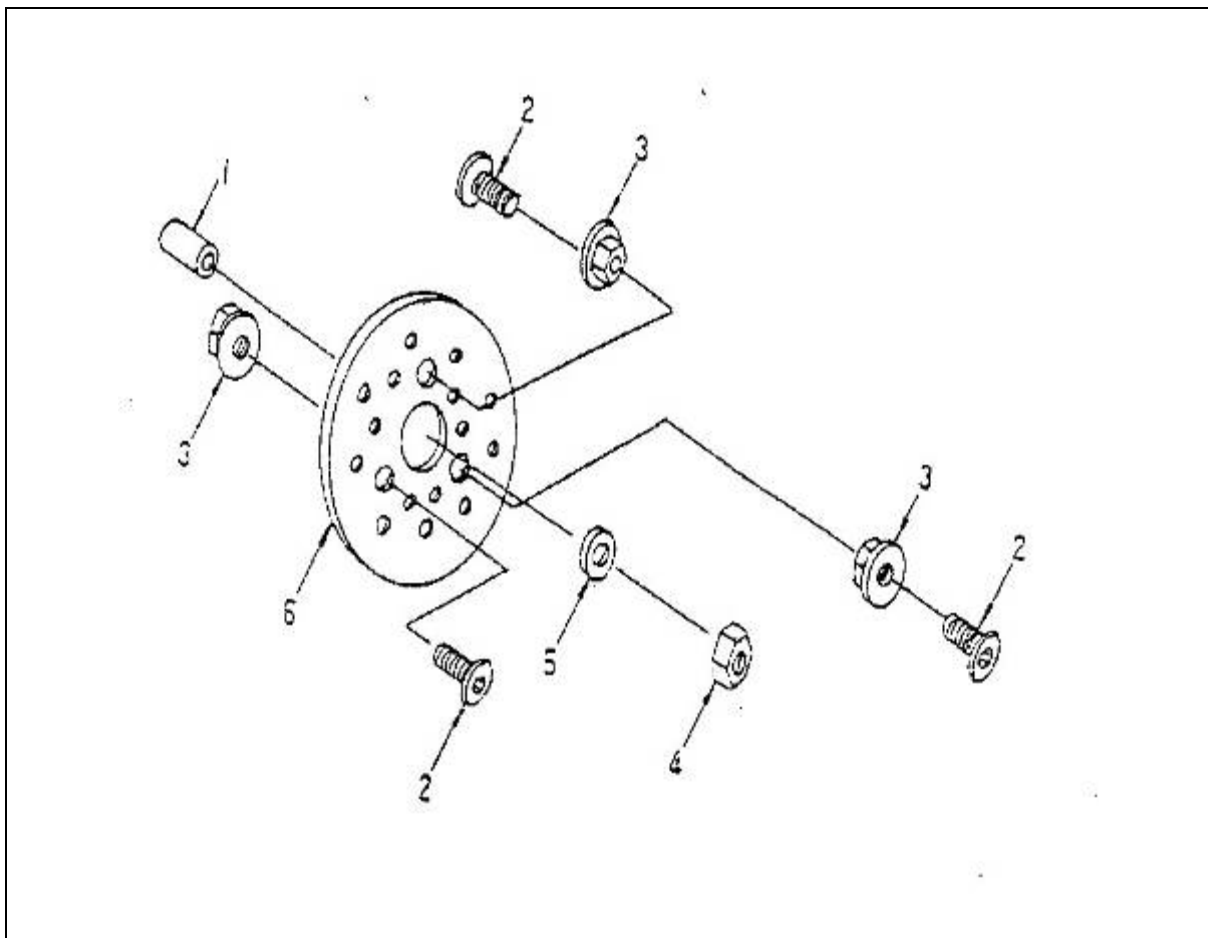
Disassembly of front wheel.



Operation / Parts name		Q'ty	Remarks
Disassembly			
1	Front collar	1	
2	Oil seal	1	
3	Radial ball bearing	2	
4	Front wheel spacer tube	1	
Assembly 4→1			Operation with sequence in reverse procedure. WARNING: Must change the R/L bearing set.

Chapter 9 Front Wheel / Front Suspension / Front Brake

Assembly / Disassembly of Front Disk



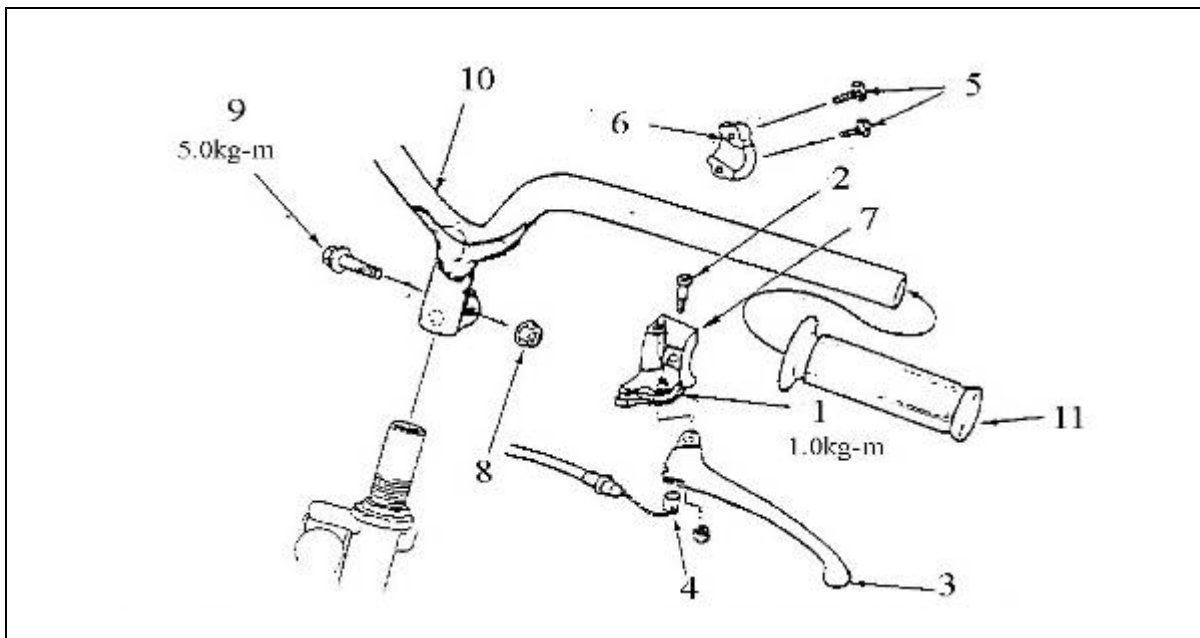
Operation / Parts name	Q'ty	Remarks
Disassembly		
1 Front collar	1	
2 Brake disc hex socket bolt	3	
3 Hex flange nut with serration	3	
4 Nylon insert lock nut	1	
5 Plain washer	1	
6 Front brake disc	1	
Assembly		
6→1		Operation with sequence in reverse procedure.

Chapter 9 Front Wheel / Front Suspension / Front Brake

Disassembly of Steering Handle

Disassembly of throttle handle

Dismount rear brake cable



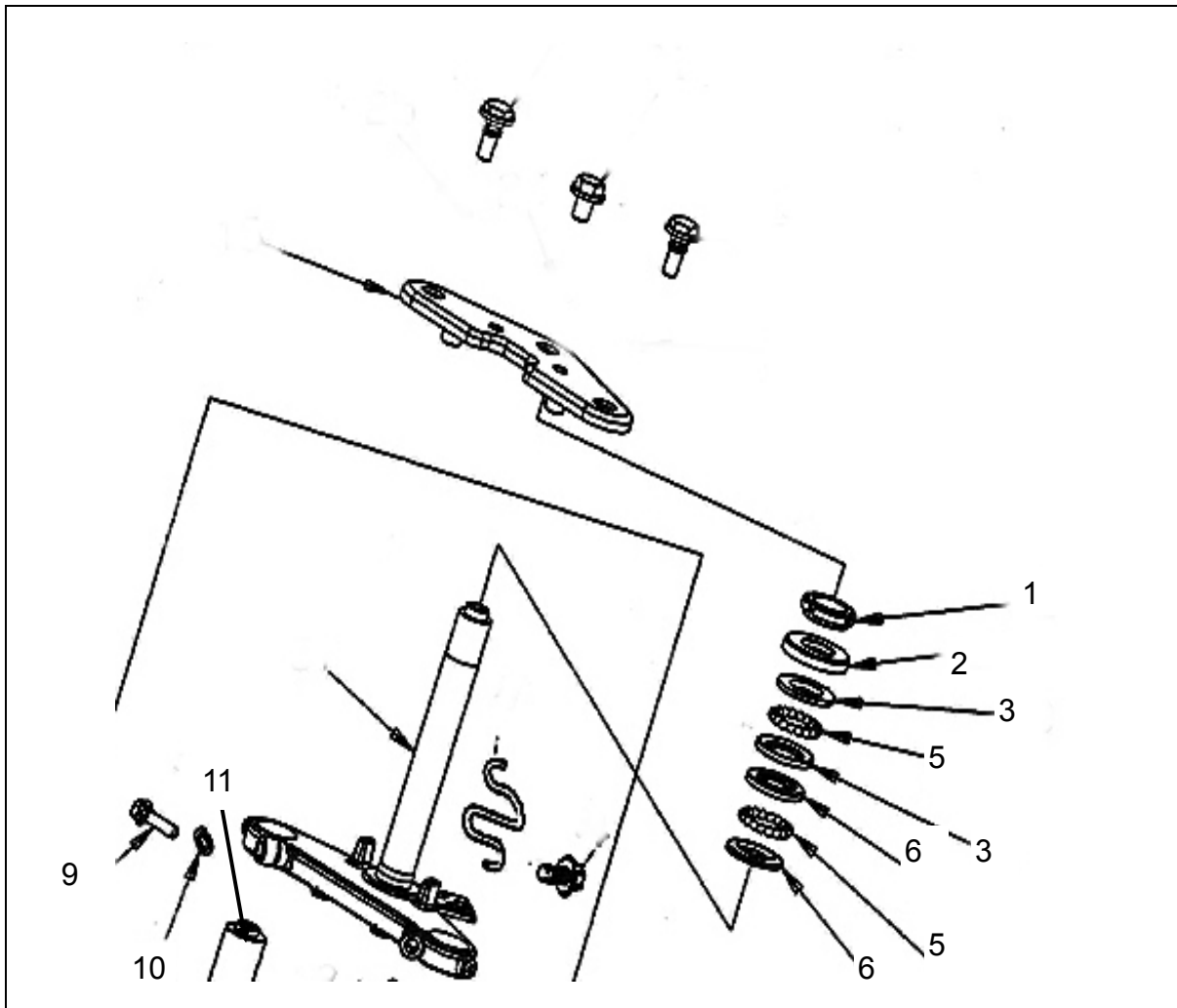
Operation / Parts name		Q'ty	Remarks
Disassembly			
	Rear brake lever		
1	Nut	1	
2	Left lever set bolt	1	
3	Rear brake lever	1	
4	Rear brake cable	1	
	Bracket of rear brake lever		
5	Hex socket bolt	1	
6	Fixed belt of steering handle	1	
7	Bracket of rear brake lever	1	
Steering Handle			
8	Hex flange nut with serration	1	
9	Washer	1	
10	Hex washer face bolt	1	
11	Steering handle	1	
12	Handle grip	1	
Assembly			
	12→1		Operation with sequence in reverse procedure.
11	Steering handle	1	WARNING:
7	Bracket of rear brake lever	1	Install steering handle with handle convex at ditch of steering stem.
4	Rear brake cable	1	The convex of brake lever bracket should be fit into handle bar.

Chapter 9 Front Wheel / Front Suspension / Front Brake

Disassembly of Steering Stem

Disassembly of front wheel.

Disassembly of steering handle



Operation / Parts name	Q'ty	Remarks
<p>Disassembly</p> <p>1 Spanner nut</p> <p>2 Steering stem dust cover</p> <p>3 Lathe cone on steering top #2</p> <p>5 Steel ball race</p> <p>6 Lathe on steering inner #3</p> <p>9 Hex bolt</p> <p>10 Washer</p> <p>11 L/R Front fork</p>	<p>2</p> <p>1</p> <p>1</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p> <p>2</p>	<p>WARNING:</p> <p>Not to damage steering stem.</p> <p>WARNING:</p> <p>Remove L/R tube by loose these two hex bolts.</p>
<p>Assembly</p> <p>11→1</p>		<p>Operation with sequence in reverse procedure.</p>

Chapter 9 Front Wheel / Front Suspension / Front Brake

Turning Front Fork to Left / Right

Turn the front fork several times to make the ball race rotate smoothly.

Slightly tie-up the bottom spanner nut then backward the nut about 1/8 turn.

Confirm the steering rotation smooth and gap of steering stem.

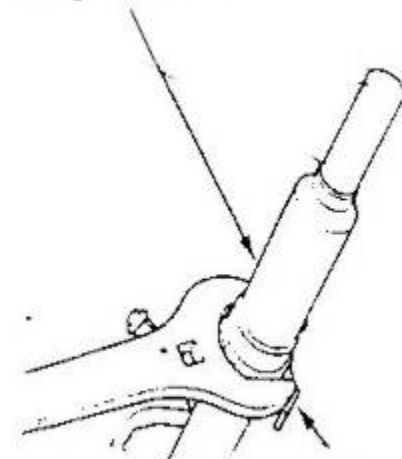
Special Tool: Fixed nut spanner

Keep the bottom spanner nut fixed to avoid the nut rotate when tighten the upper spanner nut.

Torque: 7.0 kg-m

Special Tool: Fixed nut spanner

Fixed nut spanner A



Fixed nut spanner B

Chapter 10 Rear Wheel / Suspension / Brake

Attention of Operation

WARNING:

The dusts inside brake hub are containing harmful material. Do not use air to blow the dusts. Use specified detergent or clean cloth to wipe off those dusts.

Diagnosis of Troubles

Rear wheel shaking

The shape of rear rim damaged

Tire defected

Rear suspension too soft

Tire defected

Brake efficiency abnormal

Brake pad adjustment not correct

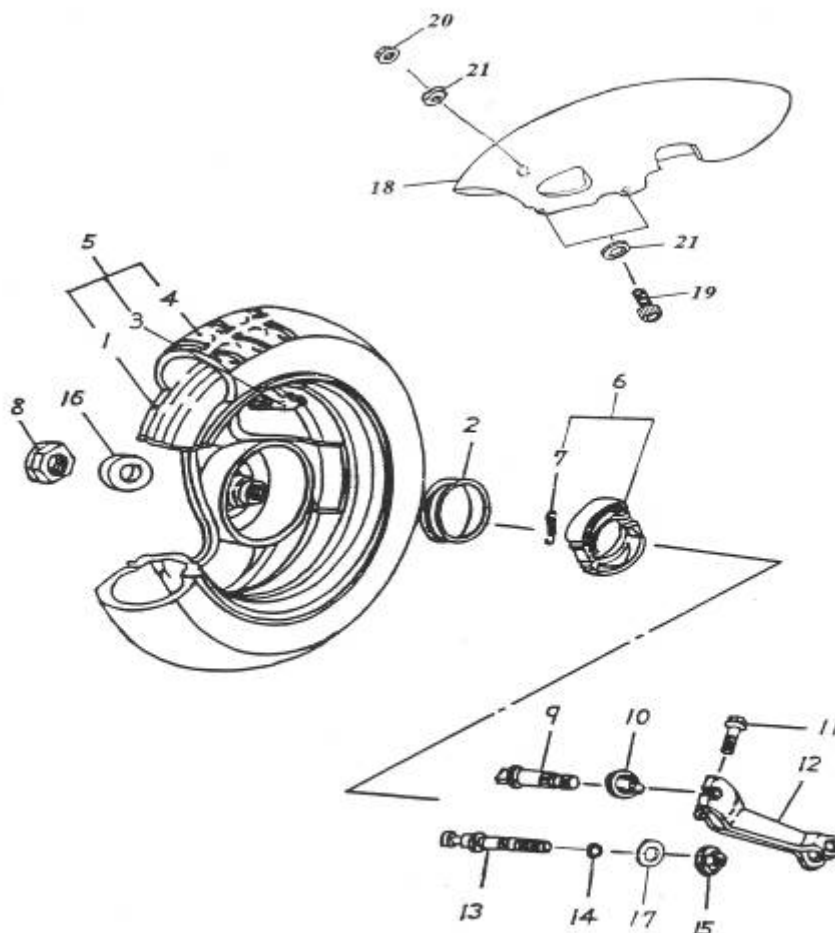
Brake pad attrition

Brake lining base wear out

Brake cam wear out

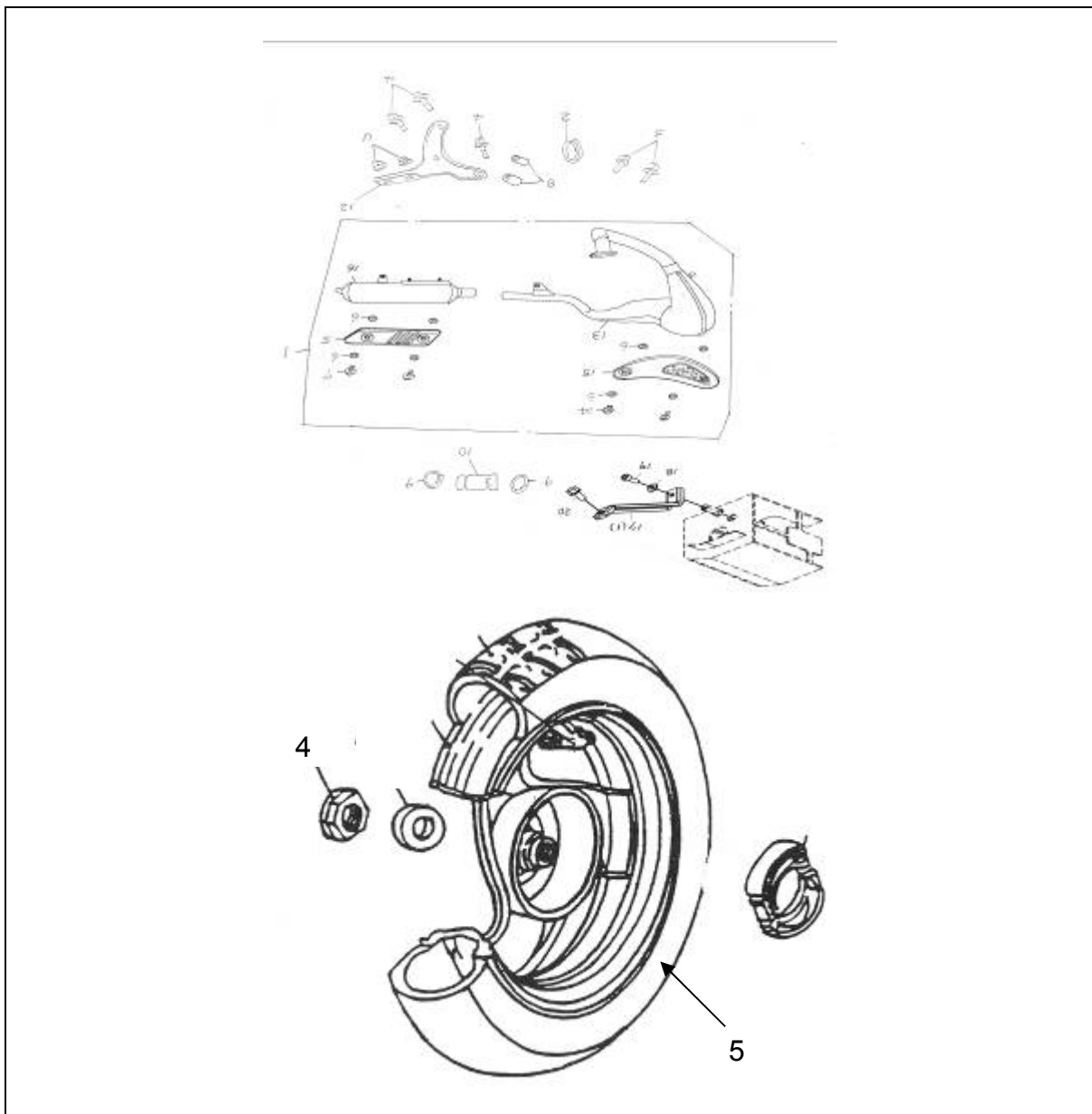
Poor setting of the brake arm tooth

Explode View of Rear Wheel



Chapter 10 Rear Wheel / Suspension / Brake

Disassembly of Rear Wheel

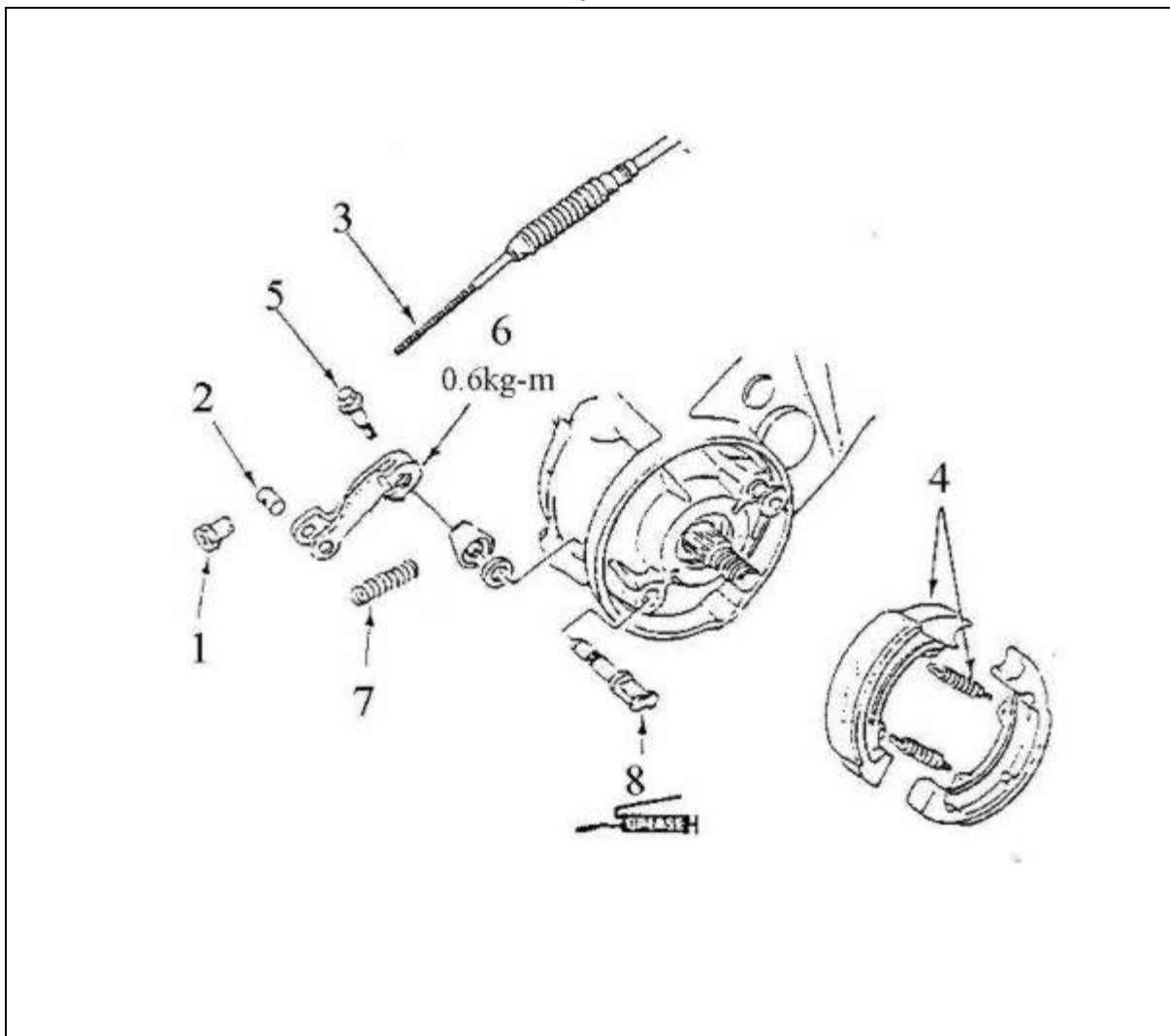


Operation / Parts name		Q'ty	Remarks
Disassembly			
Muffler			
1	Hex washer face bolt	2	
2	Hex socket bolt	2	
3	Muffler	1	
Rear wheel			
4	Nut	1	
5	Rear wheel	1	
Assembly			
5→1			–Operation with sequence in reverse procedure.

Chapter 10 Rear Wheel / Suspension / Brake

Disassembly / Assembly of Rear Brake

Disassemble rear wheel first before this operation.



Operation / Parts name	Q'ty	Remarks
Disassembly		
1 Adjusted nut of rear brake	1	
2 Rear brake fixture	1	
3 Rear brake cable	1	
4 shoe/shoe strain spring of rear	2/2	
5 brake	1	
6 Hex washer face bolt	1	
7 Rear brake arm	1	
8 Reset spring	1	
9 Brake cam shaft	1	
Assembly 8→1		Operation with sequence in reverse procedure.

Chapter 11 Electrical Device

Attention of Operation

Remove battery for charging.

Do not charge battery in fast speed if it's not urgent necessary.

Check voltage with multi-meter.

Replace the battery with same specification.

Due to CDI ignition device is not adjustable. Check CDI set & ACG if ignition is poor.

Replacing it if it's poor, confirm ignition time with original service meter.

Starter motor can be disassembly without remove the engine.

Diagnosis of Trouble

No power

Battery discharging

Shaky connection of battery wires

Fuse broke

Poor main switch

Low voltage

Poor charging of battery

Poor contact

Poor charging system

Bad regulator

Current off and on

Shaky connection of battery wires

Poor contact of charging system

Poor contact or short circuit of ignition system

Light weak

Battery discharging

Resistance of wiring switch too big

Poor charging system

Fuse broke

Poor contact, broke and short circuit of connection head or socket head.

Fail regulator

Fail ACG

Spark plug no works

Poor contact spark plug.

Poor contact, broke and short circuit of main wire.

–Between ACG & C.D.I.

–Between CDI & ignition coil

–Between CDI & main switch.

Bad ignition coil

Fail CDI set

Fail ACG

High/low beams can't be changed

Burn down bulb

Poor lighting switch

Chapter 11 Electrical Device

Starter motor no working

Fuse burn down
Battery charging insufficient
Bad main switch
Poor start switch
Poor front / rear brake switch.
Poor start breaker
Poor contact or broke of winding
Poor starter motor

Powerless starter motor

Battery charging insufficient
Bad contact of brush
Un-knew blocked in motor or gear.

Starter motor running but engine not running

Small gear had wear out of starter motor.
Counter rotation of starter motor
Battery insufficient

Turn on main switch, but no lighting

Bulb burn down
Bad switch
Guide wire broke.
Fuse burn down
Battery insufficient
Bad wiring

Fuel gauge unstable

Loose socket head of guide wires.
Wear out of contact point
Bad gauge

RPM unsmooth

Ignition — primary circuitry
–Bad ignition coil.
–Wire or poor contact.
–Poor contact main switch.
Ignition — secondary circuitry
–Bad ignition coil.
–Bad spark plug.
–Bad high voltage wires.
–Power leakage of spark plug.
Ignition time
–Bad ACG.
–Poor installation of statue inductor.
–Fail CDI.

Oil indicator light not working (when without oil)

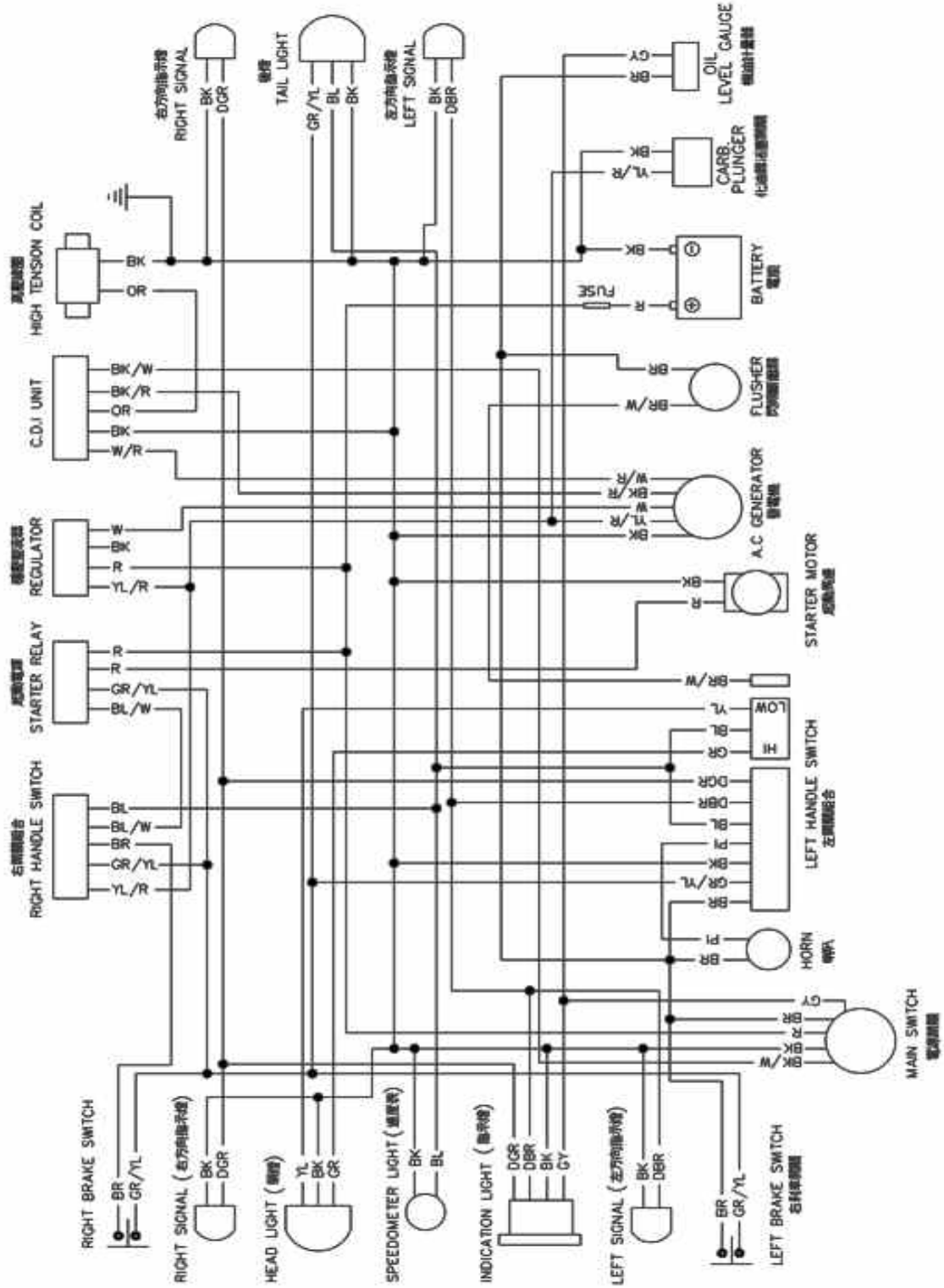
Insufficient battery power
Fuse burn
Bad main switch
Bad gauge
Bad switch of fuel height.

Flashing oil indicator light

Guide wires broke.
Poor action of floating
Poor fuel gauge

Chapter 11 Electrical Device

Solid Wiring Diagram



Chapter 11 Electrical Device

Disassembly of Battery

Remove seat

Remove rear fender

Disconnect battery wires from negative (-) terminal first.

Check Voltage of Battery

Remove seat and remove battery connection wires.

Check voltage between battery terminals.

Charging sufficiently : over 12.8 V

Charging insufficiently : 11.5-12.8V

WARNING:

Check battery voltage with digital voltmeter.

Check Charging System

Power leakage test

Turn "OFF" the main switch.

Disconnect ground guide wire from battery.

Connecting voltmeter to the end between terminal (-) & ground guide wires.

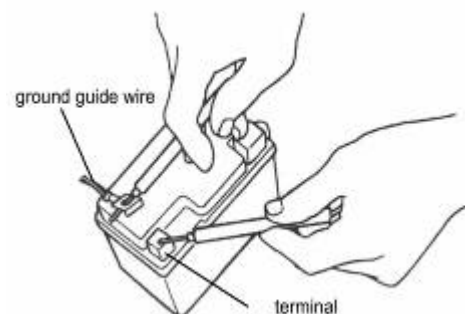
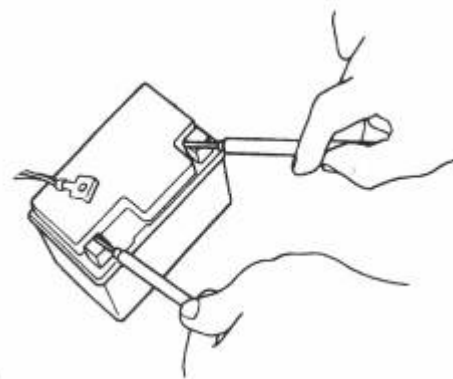
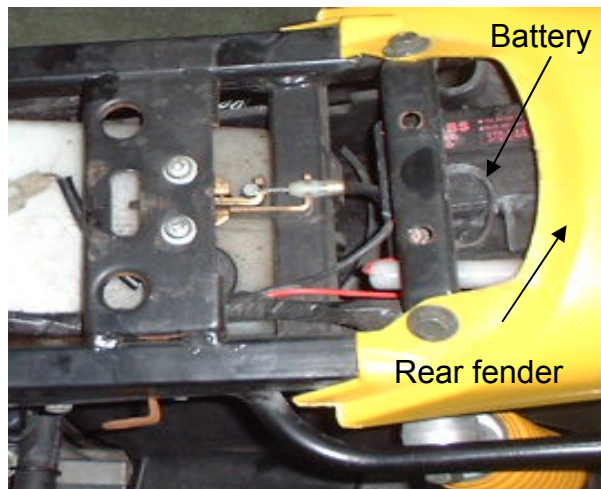
WARNING:

Check voltage according to sequence from big to small.

Voltmeter's fuse will be broken if the voltage over the limitation that choosing.

Do not turn "ON" the main switch when check current.

Current Leakage : under 1 mA



Chapter 11 Electrical Device

Check Charging Status

WARNING:

Voltage will have big change by following the charging status of battery.

Therefore the check must process after battery completely charging and the voltage over 12.8 V.

There will produce big current in battery when using electrical starter.

Assembly voltmeter to terminal of main fuse then start the engine.

Turn on the light and increasing engine RPM then check charging voltage & current.

Charging current : 1~2 Amp/5000rpm

Voltage of charging control:

14~15V/5000rpm

Check Voltage of Front Lighting Control

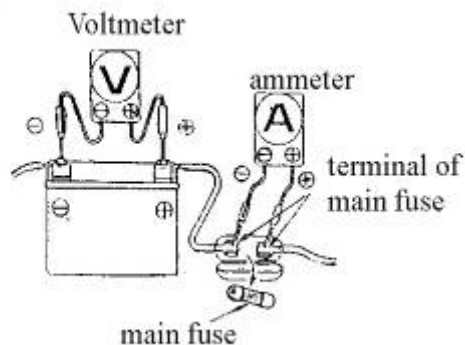
Disassemble front cover of handle bar.

WARNING:

Check head light which wires connecting.

Start engine, turn "ON" light switch, change to high beam.

Check voltage between green (+) & black (-) guide wires.



Check Voltage Regulator

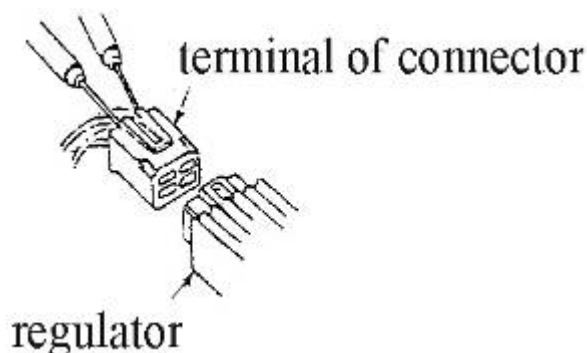
Disconnect the voltage regulator.

Check return of wiring edge connection head.

WARNING: Check in range of AC.

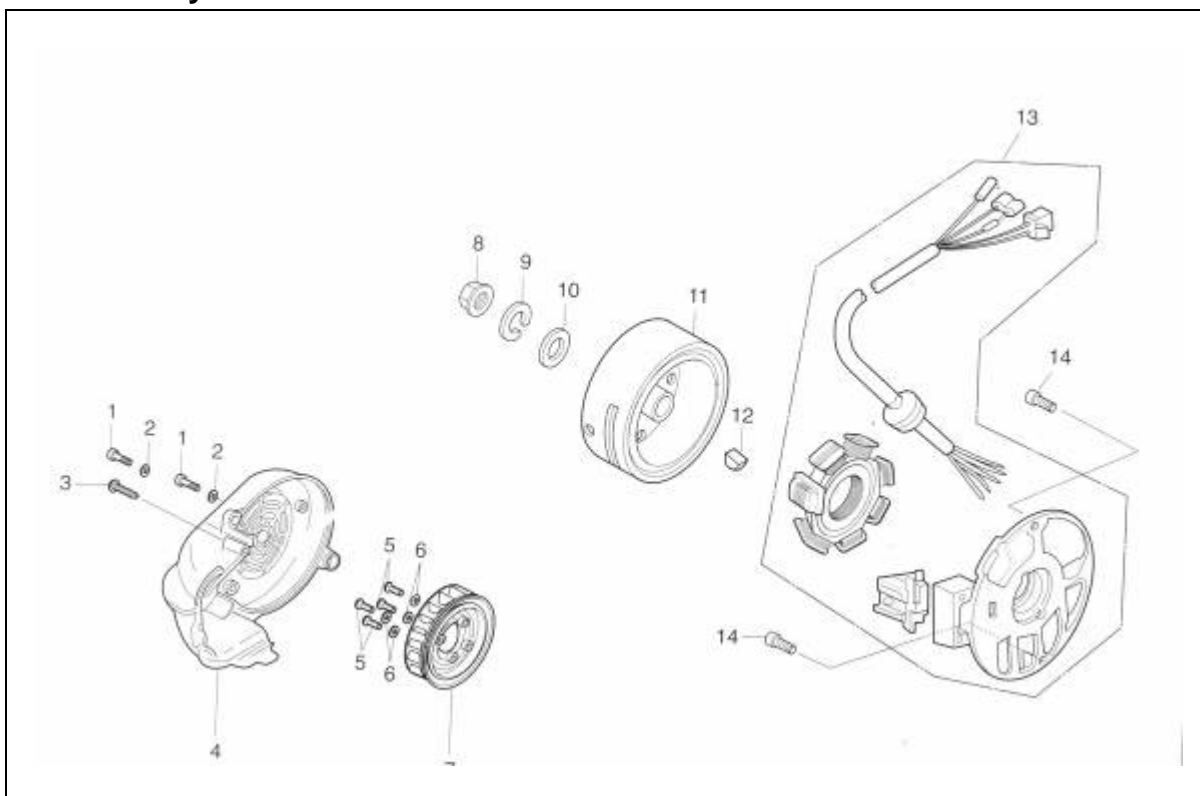
Check voltage regulator when voltage is not in the control range.

Control voltage: 12~14V/5000rpm



Chapter 11 Electrical Device

Disassembly of ACG



Operation / Parts name	Q'ty	Remarks
Disassembly		
1 Hexagon socket bolt	2	
2 Plain washer	2	
3 Self-tapping screw	1	
4 Cap of electric disc	1	
5 Hexagon socket bolt	4	
6 Plain washer	1	
7 Fan	1	
8 Hexagon nut	1	
9 Spring washer	2	
10 Plain washer	1	
11 Fly wheel of generator	2	
12 Semi-cycle of electric disc	1	WARNING:
13 Whole body bolt	1	Take the good care, no hurt coil.
14 Hexagon socket bolt	1	
Assembly 14→1		Assembling with sequence in reverse of disassembly.

Chapter 11 Electrical Device

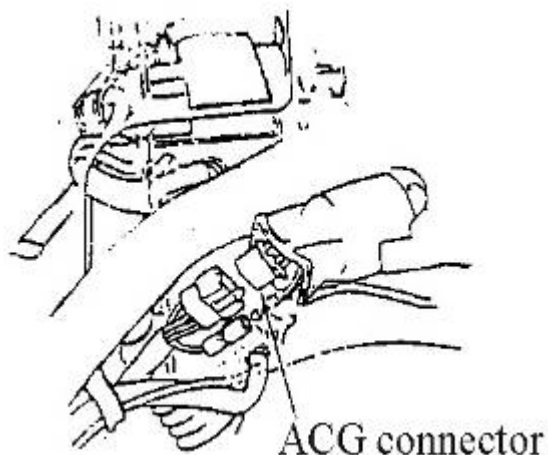
ACG (Charging Coil) Check

WARNING:

Checking the engine connected with starter motor.

Disconnect ACG connector.

Check resistance of charging wire & lighting wire.



Standard valve (20°C)

Charging wire : 0.2~1.0

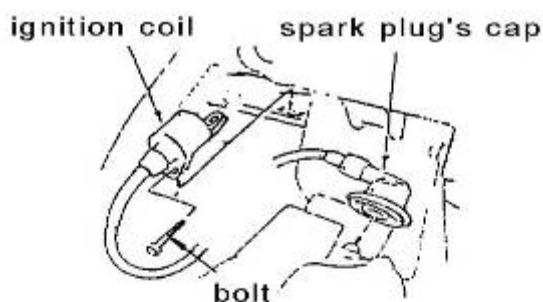
Lighting wire: 0.1~0.8

Ignition Coil

Disassembly

Disconnect the spark plug cap.

Disconnect coil wire and loosen the fix bolts, then remove ignition coil.

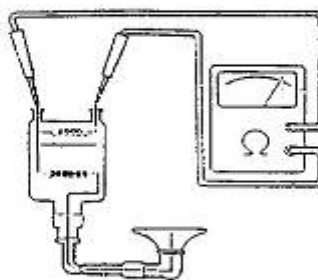


Assembly

Install in reverse order of disassembly.

WARNING:

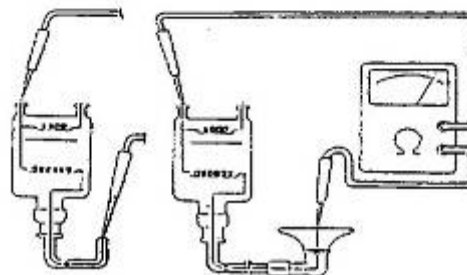
Guide wire must be installed in the right place.



Conduction Test

Check once coil resistance of ignition terminal.

Standard valve (20 °C): 0.3~0.5Ω



Chapter 11 Electrical Device

WARNING:

Check ignition status with performance tester due to this test has its own standard.

Check twice of coil resistance between spark plug cap & (-) terminal.

Standard valve : 9.5~11 k Ω

(spark plug cap in team)

Remove spark plug cap from high Voltage coil.

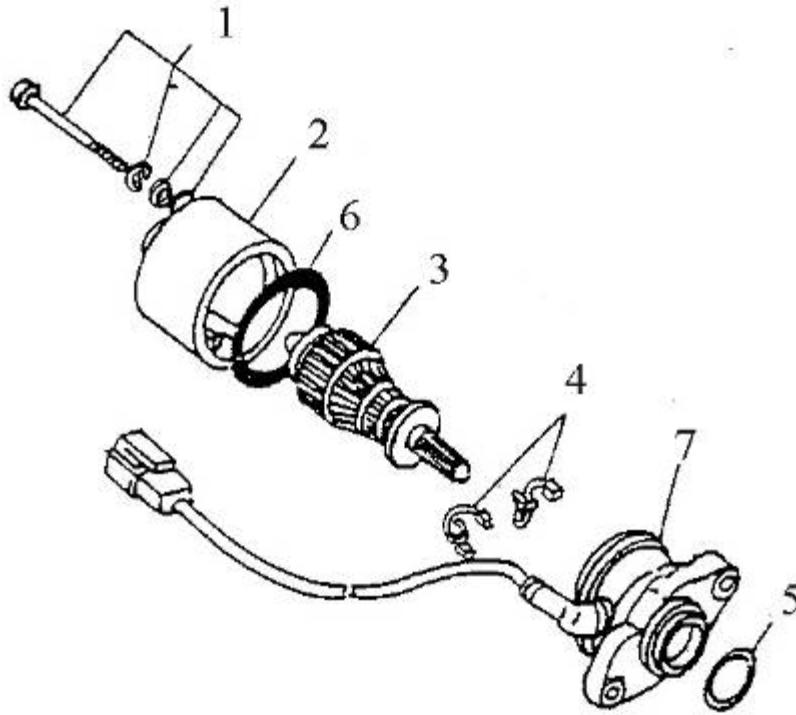
Check twice of coil resistance between high voltage & (-) terminal.

Standard valve : 5~7 k Ω

(without spark plug cap)

Chapter 11 Electrical Device

Starting motor



Operation / Parts name		Q'ty	Remarks
Separation			
1	Bolt set	2	
2	Casing	1	
3	Armature rotor	1	
4	Carbon brush	2	
5	Oil ring	1	
6	Oil ring	1	
7	Front fixed seat	1	
Assembly			
7→1			Install in reverse order of disassembly.

Chapter 11 Electrical Device

Fuel Gage

Remove fuel gage.

Put the float to up end down end to check the resistance between each terminal.

Terminal of Guide wire	Up end of float	Down end of float
Green & black	0~20Ω	90~110Ω

Main Switch

Disconnect the connector of main switch
Check the conductivity between each terminal.

Color	tea	black/red	black	red
LOCK		○—○		
OFF		○—○		
ON	○—			—○

Exchange

Remove front covering.

Remove 2 bolts, disconnect main switch connector.

Install in reverse order of disassembly.

Handle Switch Assemble

Remove front covering.

Disconnect handle switch connector, check conductivity between each terminal.

Switch of Lights

Color	Yellow/red	Blue
OFF		
ON	○—	—○

Power Switch

Color	blue/white	Black
Up		
Down	○—	—○

Exchange of Bulbs

Head light bulb

Remove front covering of handle press down the connection and turn it to change head light bulb.

Dash light

Remove rear covering of handle pull out the connection of bulb, and replace the bulb.

Rear light / Brake light / Rear direction light bulb

Remove 2 screws, pull out the light Covering to front, disassembly hook on light / brake light covering, and disassembly light covering of direction light and bulb, finally change bulb.