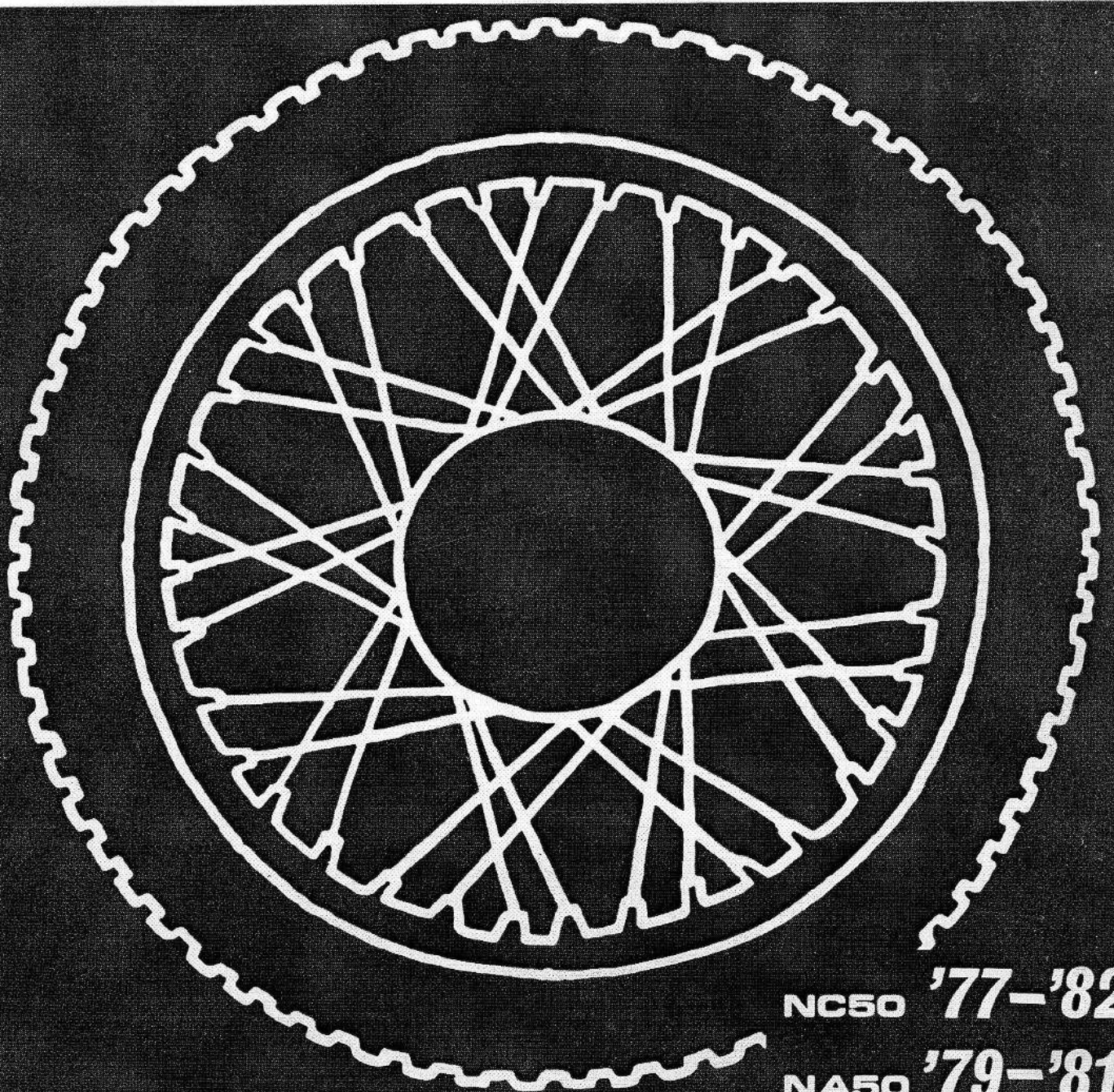


SHOP MANUAL

HONDA
NC50 *express*
NA50 *express II*



NC50 '77-'82

NA50 '79-'81

IMPORTANT SAFETY NOTICE

WARNING

Indicates a strong possibility of severe personal injury or loss of life if instructions are not followed.

CAUTION

Indicates a possibility of personal injury or equipment damage if instructions are not followed.

NOTE: Gives helpful information.

Detailed descriptions of standard workshop procedures, safety principles and service operations are not included. It is important to note that this manual contains *some* warnings and cautions against some specific service methods which could cause **PERSONAL INJURY** to service personnel or could damage a vehicle or render it unsafe. Please understand that those warnings could not cover all conceivable ways in which service, whether or not recommended by Honda might be done or of the possible hazardous consequences of each conceivable way, nor could Honda investigate all such ways. Anyone using service procedures or tools, whether or not recommended by Honda *must satisfy himself thoroughly* that neither personal safety nor vehicle safety will be jeopardized by the service method or tools selected.



This shop manual describes the technical features and servicing procedures for the HONDA NC50 and NA50.

Refer to the addendums at the back of the shop manual for 1979 and subsequent model years service information.

HONDA MOTOR CO., LTD.
Service Publications Office

ALL INFORMATION, ILLUSTRATIONS, DIRECTIONS AND SPECIFICATIONS INCLUDED IN THIS PUBLICATION ARE BASED ON THE LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF APPROVAL FOR PRINTING. HONDA MOTOR CO., LTD. RESERVES THE RIGHT TO MAKE CHANGES AT ANY TIME WITHOUT NOTICE AND WITHOUT INCURRING ANY OBLIGATION WHATEVER.

NO PART OF THIS PUBLICATION MAY BE REPRODUCED WITHOUT WRITTEN PERMISSION.



TABLE OF CONTENTS

TECHNICAL FEATURES

FEATURES	1-1
2-STROKE ENGINE FUNDAMENTALS	2-1
ENGINE	3-1
STARTING SYSTEM/POWER TRANSMISSION SYSTEM	4-1
LUBRICATION SYSTEM	5-1
CARBURETOR	6-1

SERVICING PROCEDURES

SERVICE PRECAUTIONS	7-1
INSPECTION/ADJUSTMENT	8-1
ENGINE REMOVAL/INSTALLATION	9-1
Engine CYLINDER HEAD/CYLINDER/PISTON	10-1
Engine OIL PUMP	11-1
Engine A.C. GENERATOR	12-1
Engine L. COVER/STARTER	13-1
Engine CLUTCH/FINAL DRIVE GEAR	14-1
Engine CRANKCASE/CRANKSHAFT	15-1
Engine CARBURETOR	16-1
Frame HANDLEBAR/FRONT FORK/FRONT WHEEL	17-1
Frame REAR SHOCK ABSORBER/FUEL TANK	19-1
ELECTRICAL	20-1
SPECIAL TOOLS	21-1
MAINTENANCE SCHEDULE	22-1
TORQUE SPECIFICATIONS	23-1
SERVICE DATA	24-1
TROUBLESHOOTING	25-1
SPECIFICATIONS	26-1
WIRING DIAGRAM	27-1
'79 NA50 ADDENDUM	28-1
'80 NC50 ADDENDUM	29-1
'80 NA50 ADDENDUM	30-1
'81 NC50 • NA50 ADDENDUM	31-1
'82 NC50 ADDENDUM	32-1



HONDA
NC50

TECHNICAL FEATURES

- 1 . FEATURES
- 2 . 2-STROKE ENGINE FUNDAMENTALS
- 3 . ENGINE
- 4 . STARTING SYSTEM/POWER TRANSMISSION SYSTEM
- 5 . LUBRICATION SYSTEM
- 6 . CARBURETOR



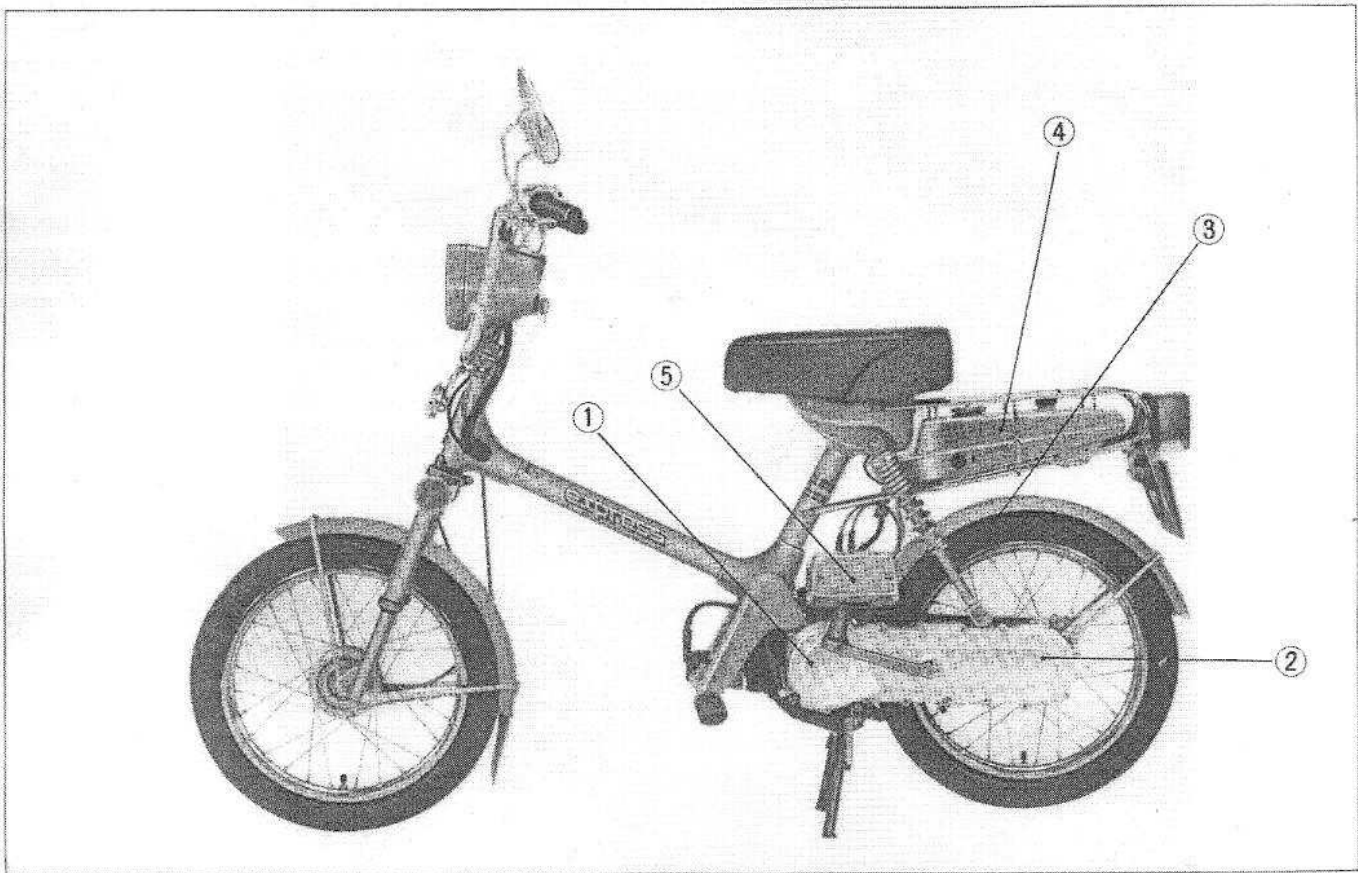
FEATURES

The Honda NC 50 is powered by a 2-stroke, 49 cc, crankcase scavenged gasoline engine with two reed valves incorporated in the intake port.

This model is designed on the basis of a "maintenance-free" philosophy in that the maintenance items are limited and service procedures are simplified to a great extent.

A new design is employed in the starting mechanism for simple and easy starting.

- ① With the use of a starting spring which stores power for cranking the engine, starting is remarkably easy for everyone.
- ② The power train is enclosed in the left crankcase with an oil bath to lubricate the compartments. The engine and L crankcase swing up and down as a unit, with a pivot in the pipe frame.
- ③ The rear wheel is suspended by one rear shock absorber on the left side in combination with the L crankcase.
- ④ Since an independent lubrication system is employed, fuel and oil are separately filled in the gasoline tank.
- ⑤ A high-performance plunger type pump is utilized for lubrication purposes.

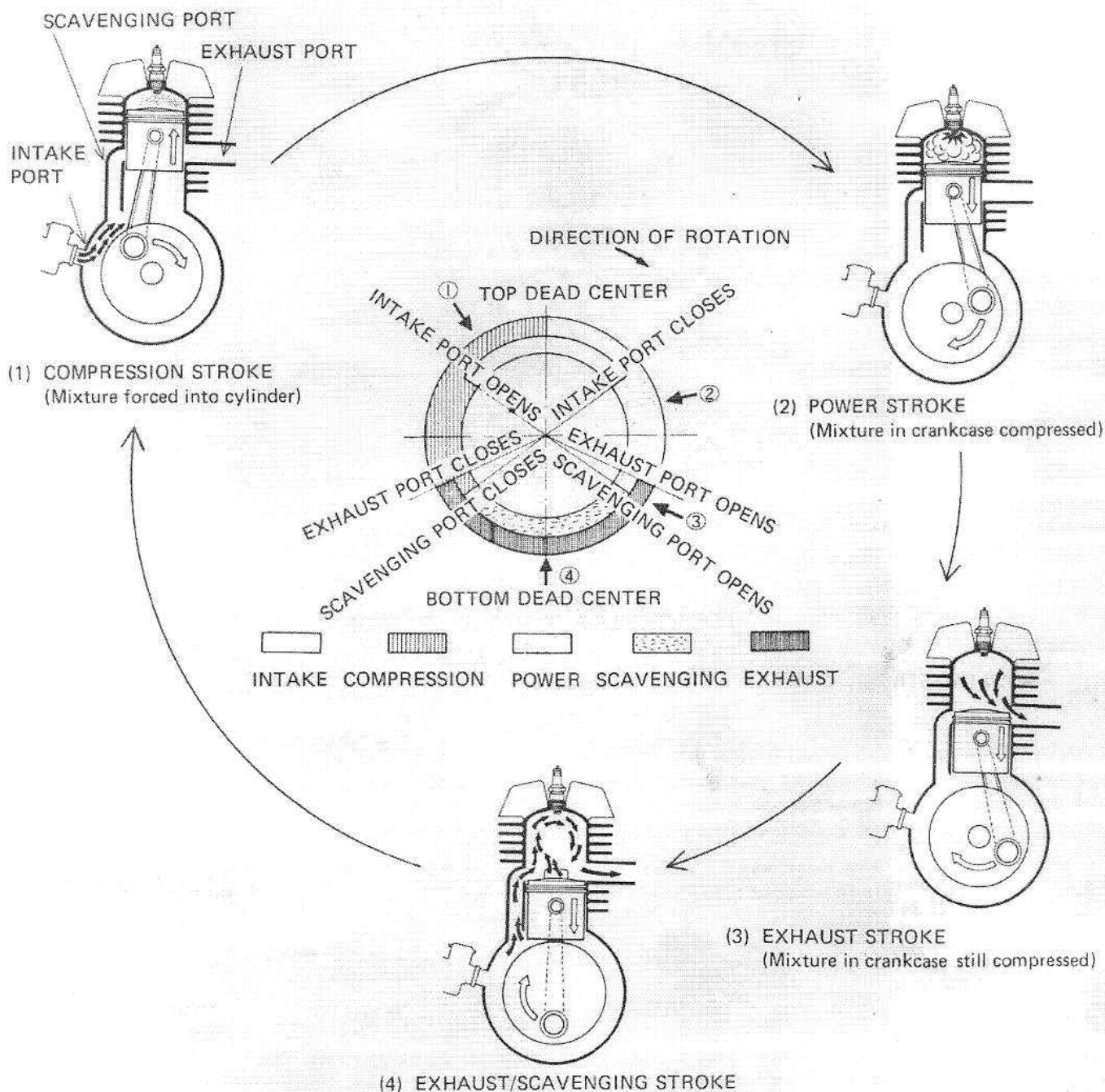




In most 2-stroke engines, the mixture is first drawn into the crankcase and then forced into the cylinder by the pressure build-up which results from the down movement of the piston, thereby, forcing the exhaust gases out through the exhaust port.

Unlike a 4-stroke engine, when firing occurs in the cylinder, some of the exhaust gases still remain mixed in the fuel mixture. Therefore, the engine performance of an 2-stroke engine is mainly dependent upon the timing of absorbing the mixture into the crankcase and the scavenging efficiency of the exhaust gases by the pressurized fuel mixture.

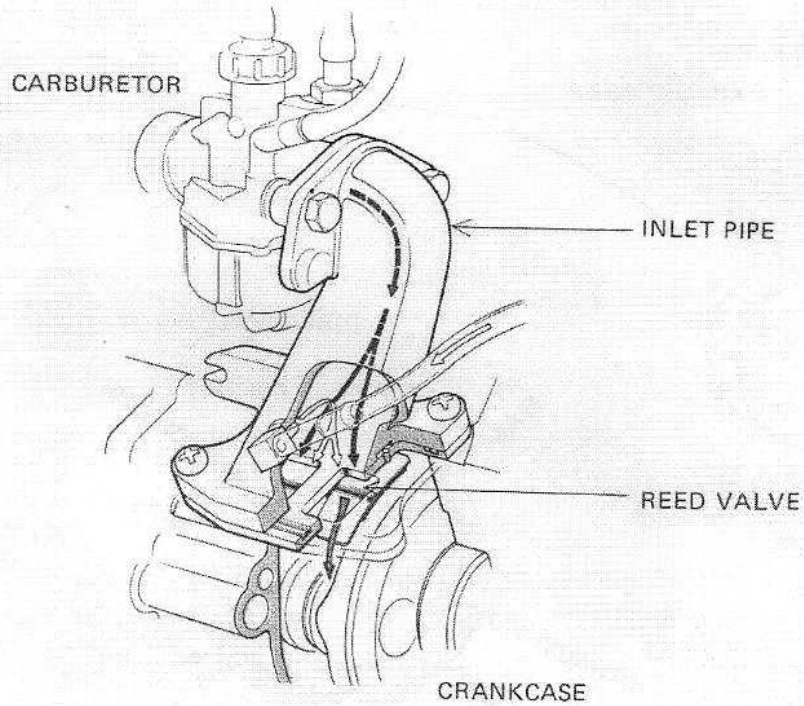
(2-STROKE CYCLE PRINCIPLE)



(PORT TIMING)

Two-cycle port timing is determined by the locations of the ports in the cylinder. On NC50, the intake port is provided with a pair of reed valves shaped to give an optimum port timing throughout the entire speed range. The use of the reed valve prevents reverse flow of mixture from the crankcase into the carburetor and assures improved performance even at moderate and low speeds.

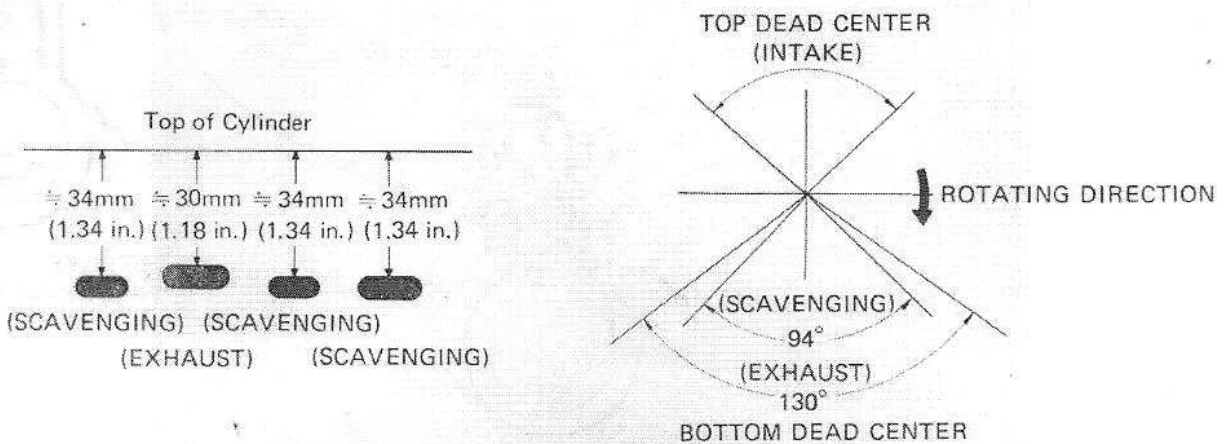
(REED VALVE CONSTRUCTION)

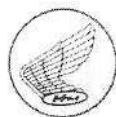


(LOCATION OF PORTS IN CYLINDER)

— NC50 TWO-STROKE PORT AND VALVE TIMING —

Opening and closing angles in terms of crankshaft angles are given below:

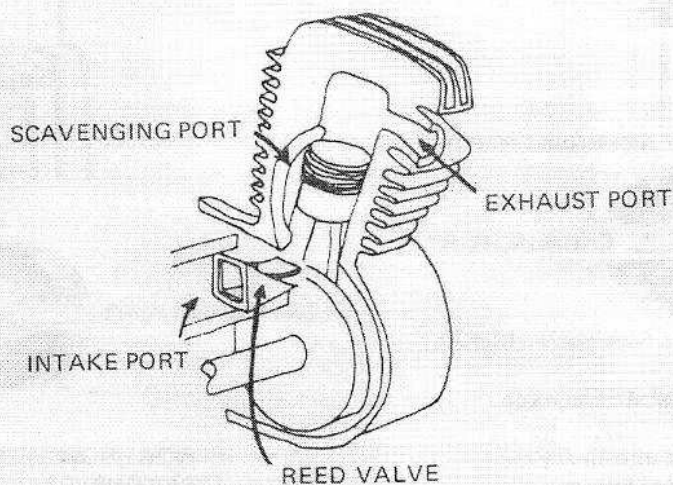




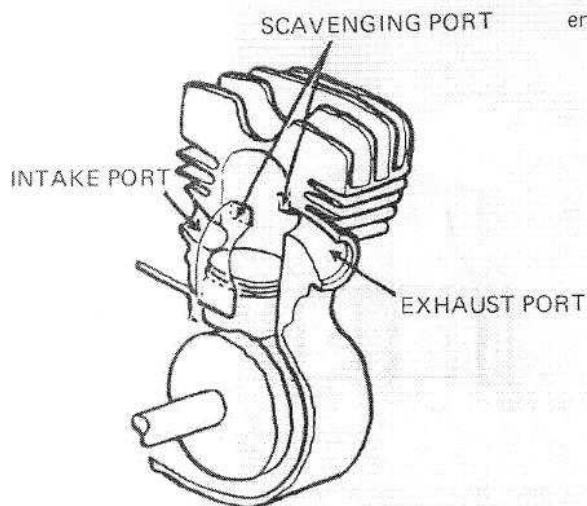
1. 2-STROKE PORT AND VALVE ARRANGEMENT

2-stroke port and valve arrangement comes in three types; 1) Reed valve, 2) Piston valve, and 3) Rotary valve. On the NC50, a pair of thin reed valves is utilized for each intake port. Opening and closing of the exhaust ports are made by the piston as it moves up and down in the cylinder.

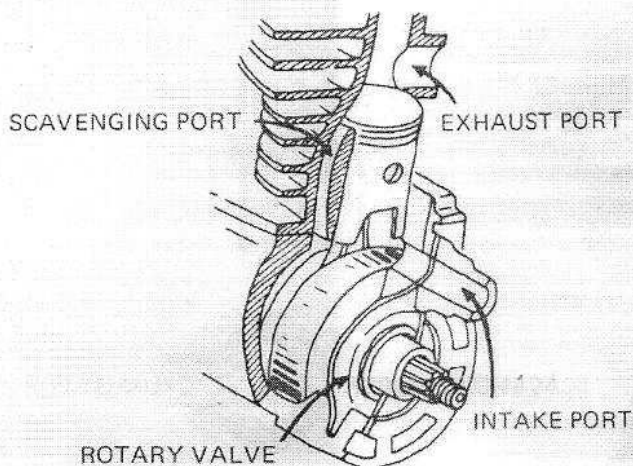
NC50 PORT AND VALVE ARRANGEMENT



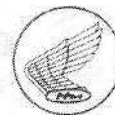
(1) REED VALVE TYPE
Thin plate opens and closes the intake port when differential pressure takes place across the intake passage and engine crankcase.



(2) PISTON VALVE TYPE
The intake ports in the cylinder wall are opened and closed by the piston as it moves up and down.

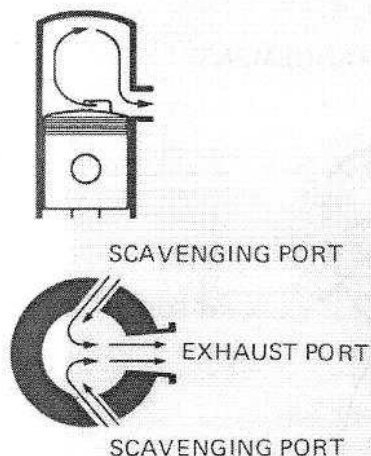


(3) ROTARY VALVE TYPE
A rotary disc plate with a slot closes and opens the intake port in the crankcase wall. In some installations, the crank web is used to open and close the port.



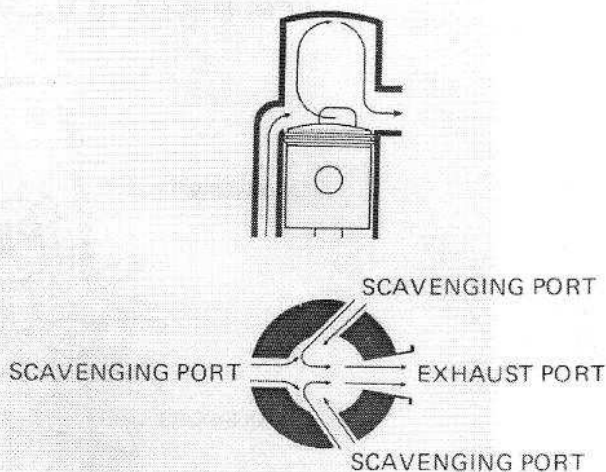
2. SCAVENGING

Three methods of scavenging are in commonly used. The NC50 utilizes loop scavenging with three scavenging ports.

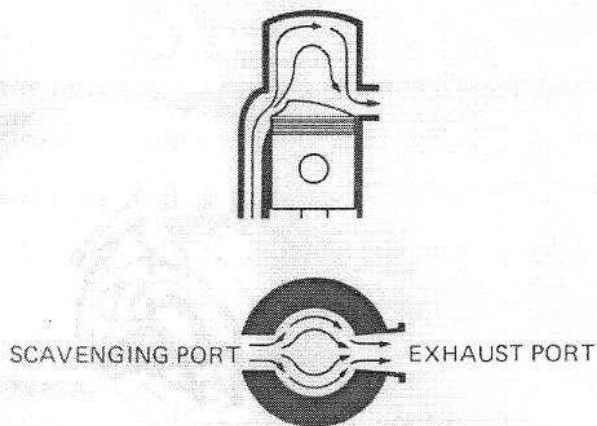
**(1) LOOP TYPE SCAVENGING**

In Schnuerle type, the mixture discharged into the cylinder through the scavenging ports is, by the angle of the port outlets, thrown against the wall opposite from the exhaust port and bounced back, thus forcing the exhaust gas out of the port.

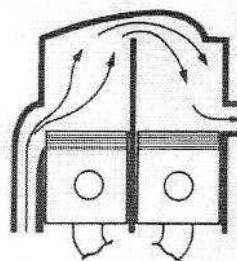
NC 50 SCAVENGING



HONDA NC50 EMPLOYS SCHNUERLE TYPE, ONE OF LOOP METHODS, BUT THREE SCAVENGING PORTS INSTEAD OF TWO ARE PROVIDED IN ORDER TO ASSURE STEADY SCAVENGING EFFECT.

**(2) CROSS SCAVENGING TYPE**

The specially designed piston crown or deflector acts as a guide to allow the mixture to flow upwards and then downwards to the exhaust port in the opposite side of the cylinder.

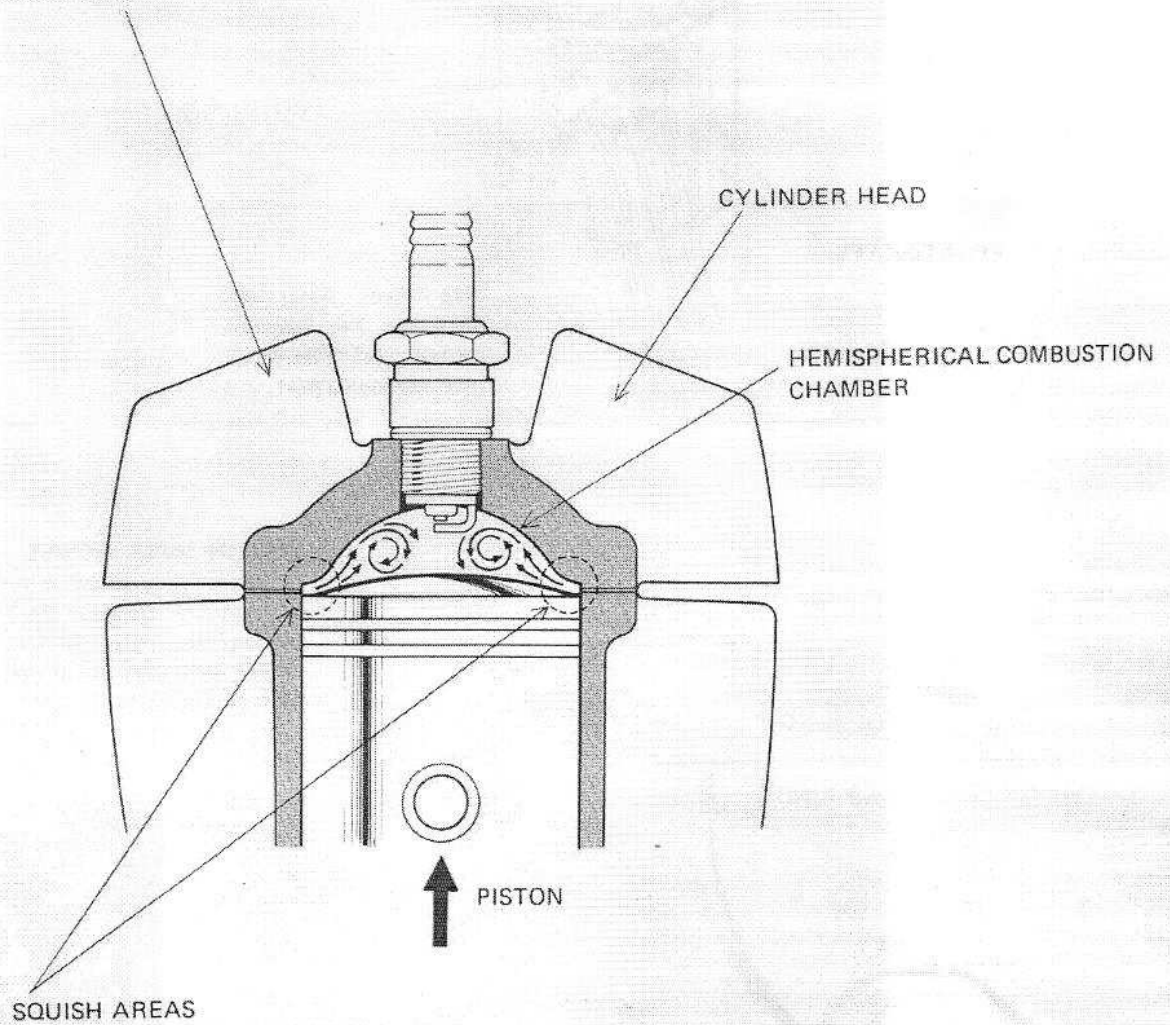
**(3) UNIFLOW TYPE SCAVENGING**

One opening interconnects the two combustion chambers at top. Scavenging port is provided in one cylinder and exhaust port in the other cylinder so that the scavenging flows runs in one way without entanglement.



1. CYLINDER HEAD

Two-cycle engines run hotter than four-cycle engines since each upward movement of the piston is a compression stroke and each downward movement, a power stroke. The cylinder is a sturdy, one-piece aluminum casting with rows of fins to dissipate excess heat.

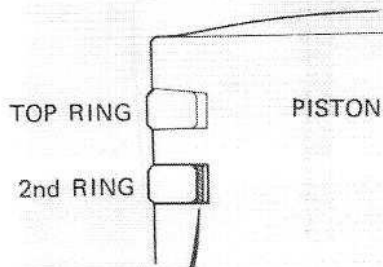
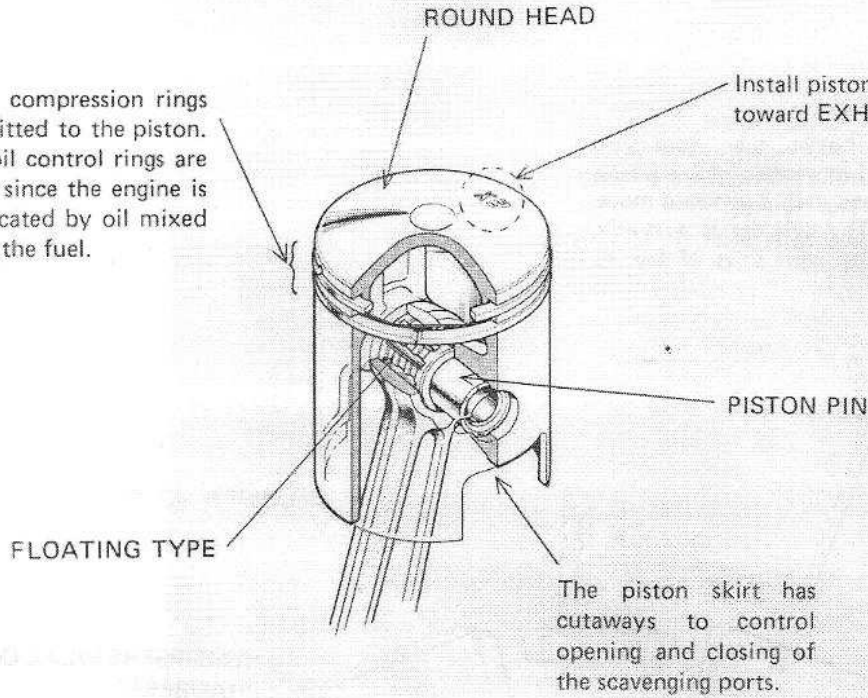


A clearance, called squish area, is provided all the way along the circumference of the chamber between the piston at TDC and cylinder head, where the mixture is under pressure higher than the other area. This causes the mixture in the squish area to rush toward the center, thus making the burning steadier, assuring high burning efficiency and also minimizing carbon formation.



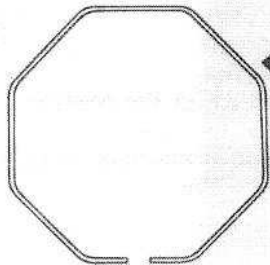
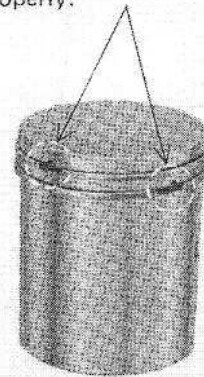
2. PISTON

Two compression rings are fitted to the piston. No oil control rings are used since the engine is lubricated by oil mixed with the fuel.



PISTON RING DOWEL

A piston ring dowel is press fitted to each ring groove to locate the ring in place. After fitting the ring in the ring groove, check to make sure that the dowel engages the ring end gap properly.



RING EXPANDER

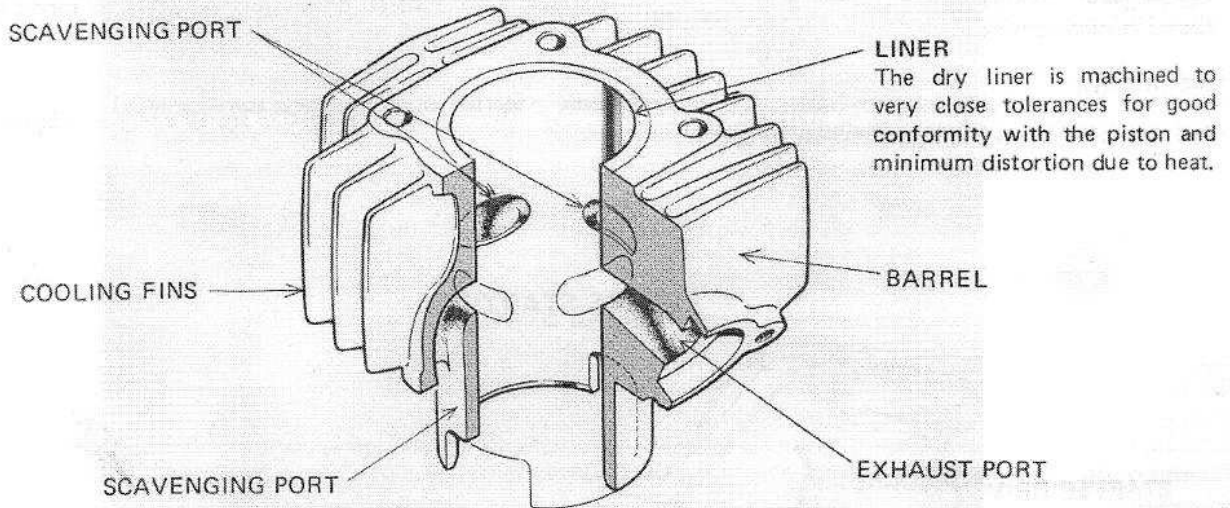
Expander assures uniform ring contact and reduces slapping sound.

RING END GAP



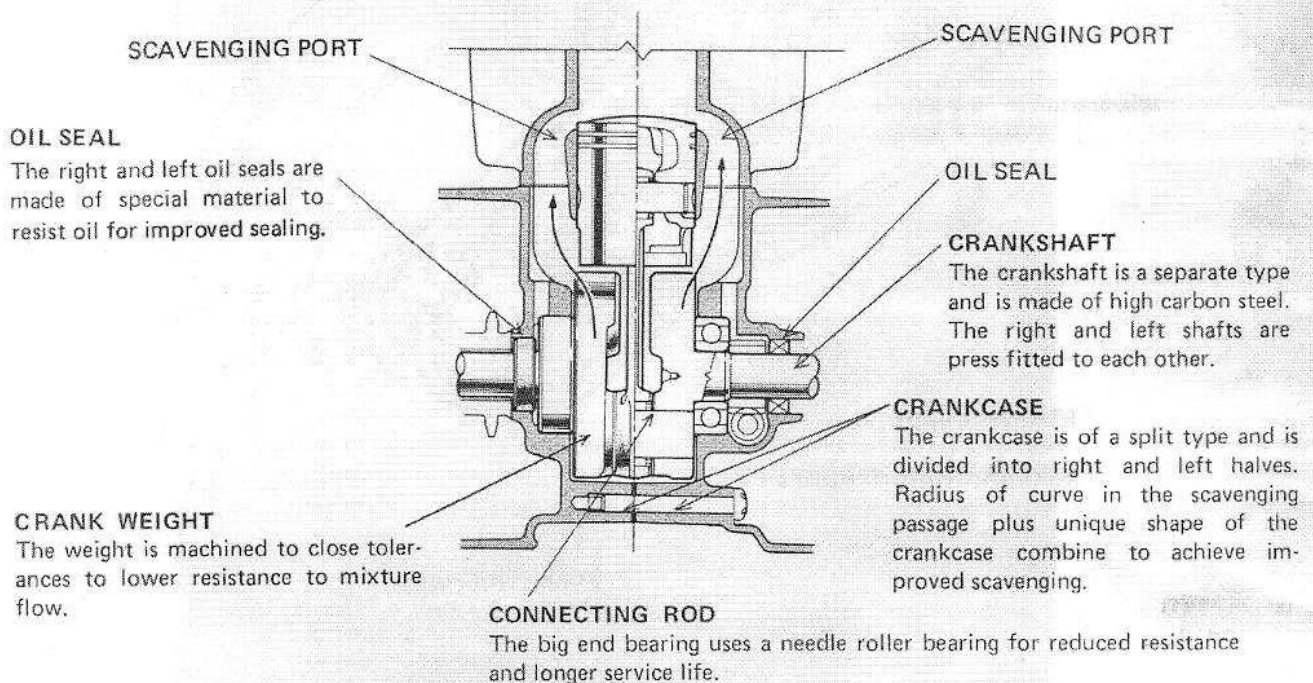
3. CYLINDER

The cylinder block is designed such that maximum rigidity with minimum distortion characteristics are accomplished in an aluminum casting. The block employs a dry liner which is in full-face contact with the block for good conduction of heat. The ports in the cylinder are arranged to provide most effective breathing and easiest exhaust gas explosion.



4. CRANKSHAFT/CRANKCASE

The crankcase is of airtight construction with least resistance to mixture flow. It is designed to offer effective scavenging to blow out remaining exhaust gases in the cylinder and to provide mixture for the next cycle effectively.



STARTING SYSTEM/ POWER TRANSMISSION SYSTEM

The motorcycle is not equipped with a transmission. Starting is accomplished by a foot pedal located at the left side of the motorcycle. The entire starting system consists mainly of the foot pedal, starter spring, starter drive and driven sprockets and starter chain. These are bathed in oil in a sealed case.

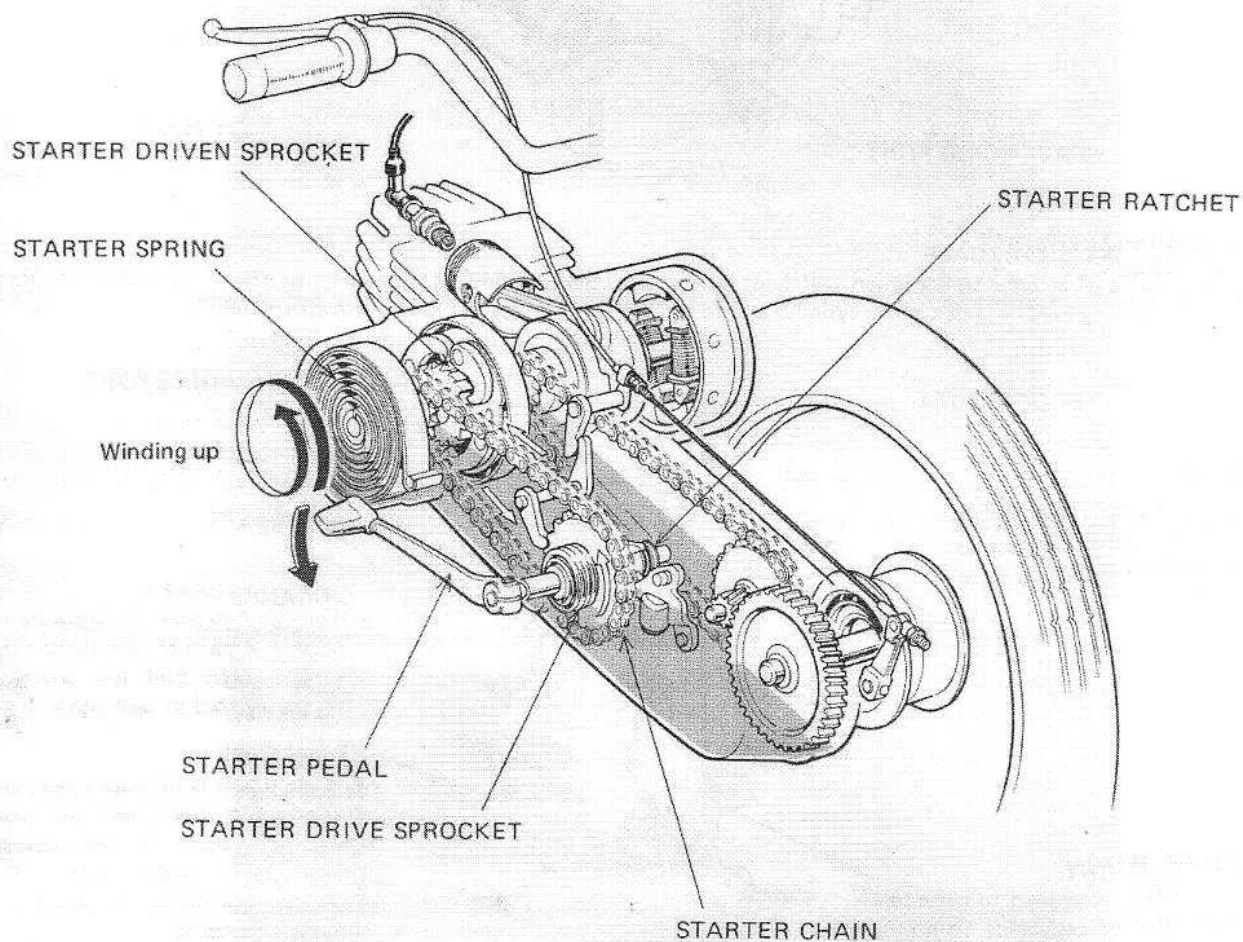
(BEFORE STARTING)

Starter pedal → Starter ratchet → Starter drive sprocket → Starter chain → Starter driven sprocket → Starter spring → Energy stored in starter spring (motorcycle is ready for starting)

(STARTING)

Rear brake lever → Brake cable → Starter lever → Starter arm → Starter spring (releasing stored energy) → Starter driven sprocket → Drive plate → Engine crankshaft → Start

— BEFORE STARTING —

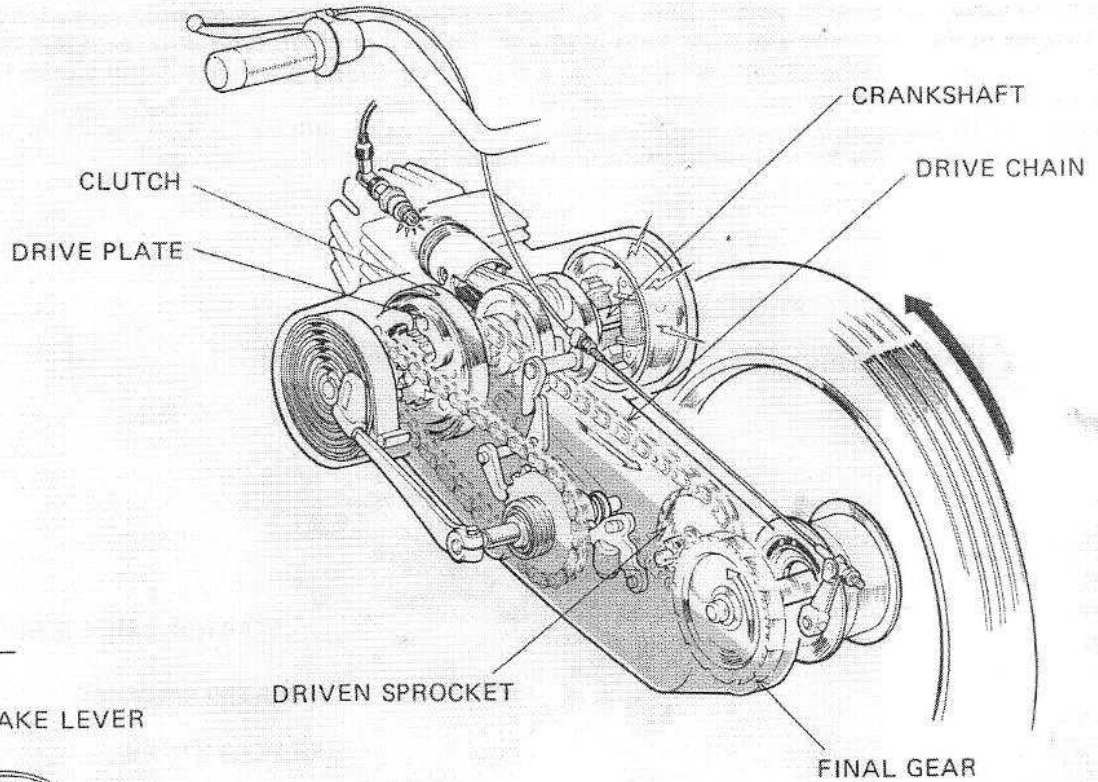




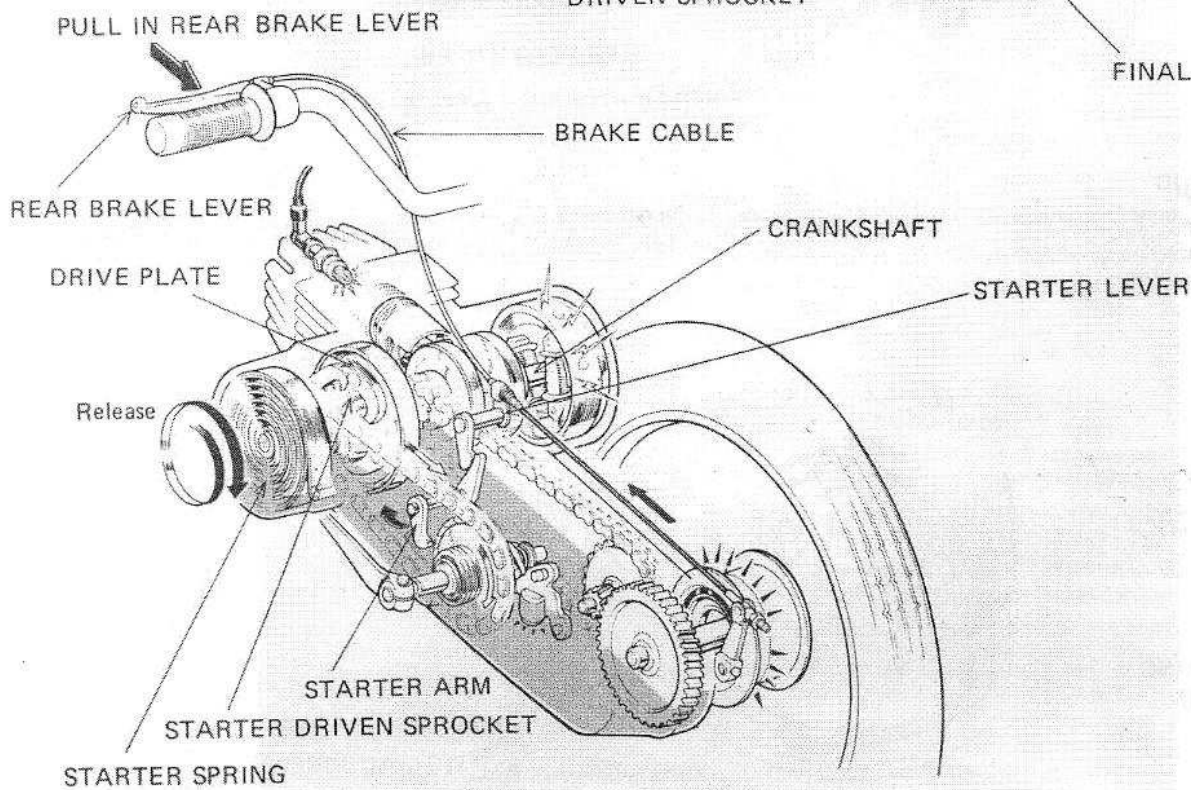
(POWER TRANSMITTING SYSTEM)

Crankshaft → Drive plate → Clutch → Drive chain → Driven sprocket → Final Gear → Rear wheel

— POWER TRANSMITTING SYSTEM —



— STARTING —





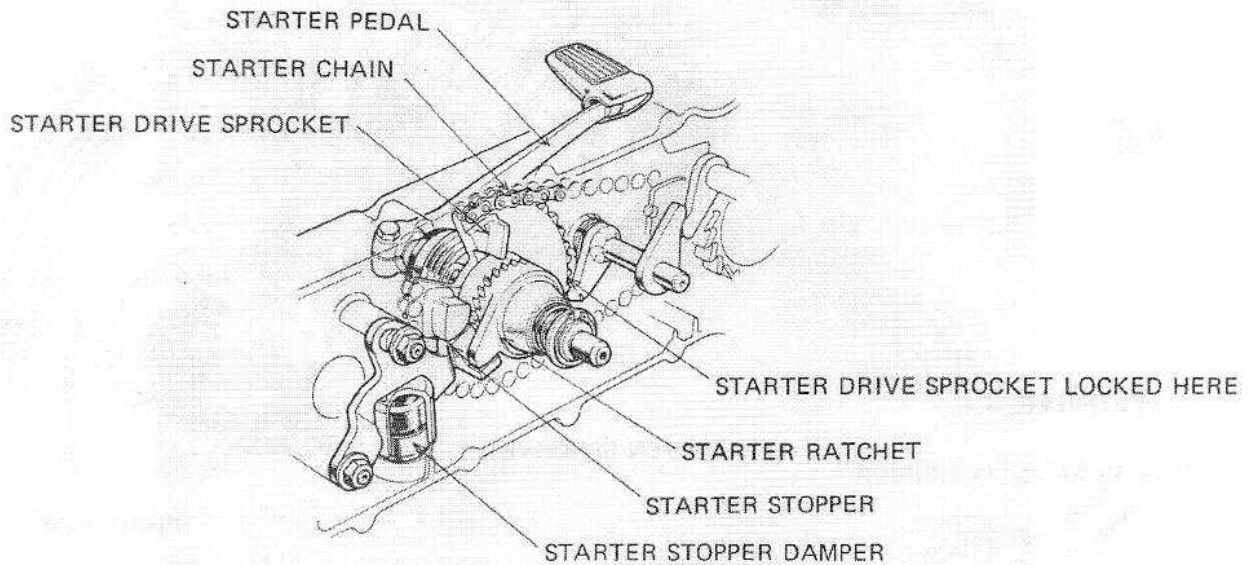
1. STARTER DRIVE SPROCKET

The starter drive sprocket transmits energy to the starter spring through the starter chain. It also keeps the spring compressed until the rear brake lever is pulled in for starting.

(OPERATION)

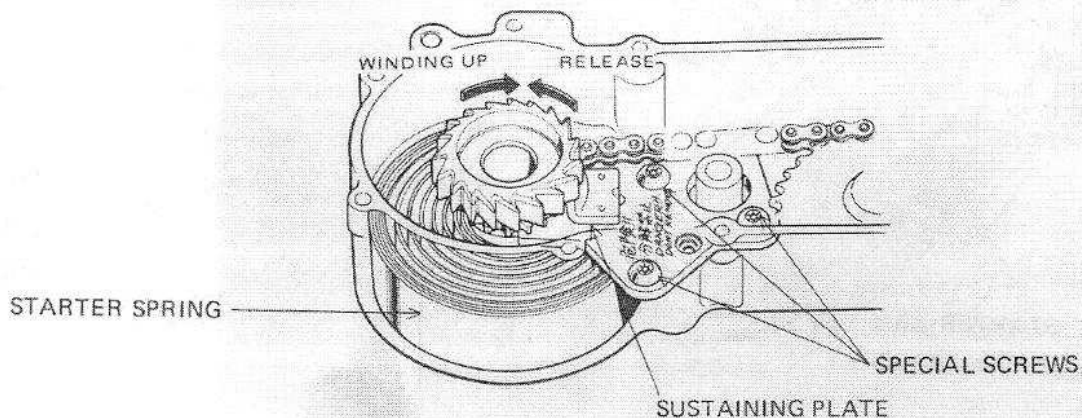
Effort exerted on the starter pedal is transmitted to the starter drive sprocket as described above. The starter ratchet then holds the spring compressed even if the pedal is released. The purpose of the starter drive sprocket is twofold; 1) To transmit energy to the starter spring through the ratchet, and 2) to keep the spring compressed until the rear brake lever is pulled in.

As the starter spring is released, it causes the starter drive sprocket to turn until it bears against the stopper. The starter stopper damper absorbs shock on the stopper when the spring is released.



2. STARTER SPRING

On the NC50, the engine is cranked by releasing energy stored in the starter spring. The spring is held in place with a sustaining plate and special screws and cannot be disassembled in the field. Notice that the spring will pop out in a dangerous manner when disassembled.





3. CLUTCH

A wet, centrifugal clutch with drive plate couples and uncouples the engine to and from the power train. The drive plate incorporates a set of ratchet pawls and clutch weights to which the shoes are attached.

(OPERATION)

To start the engine, the starter pedal should first be depressed several times. Thus, when the rear brake lever is pulled in, this action releases energy stored in the starter spring, causing the driven sprocket to rotate.

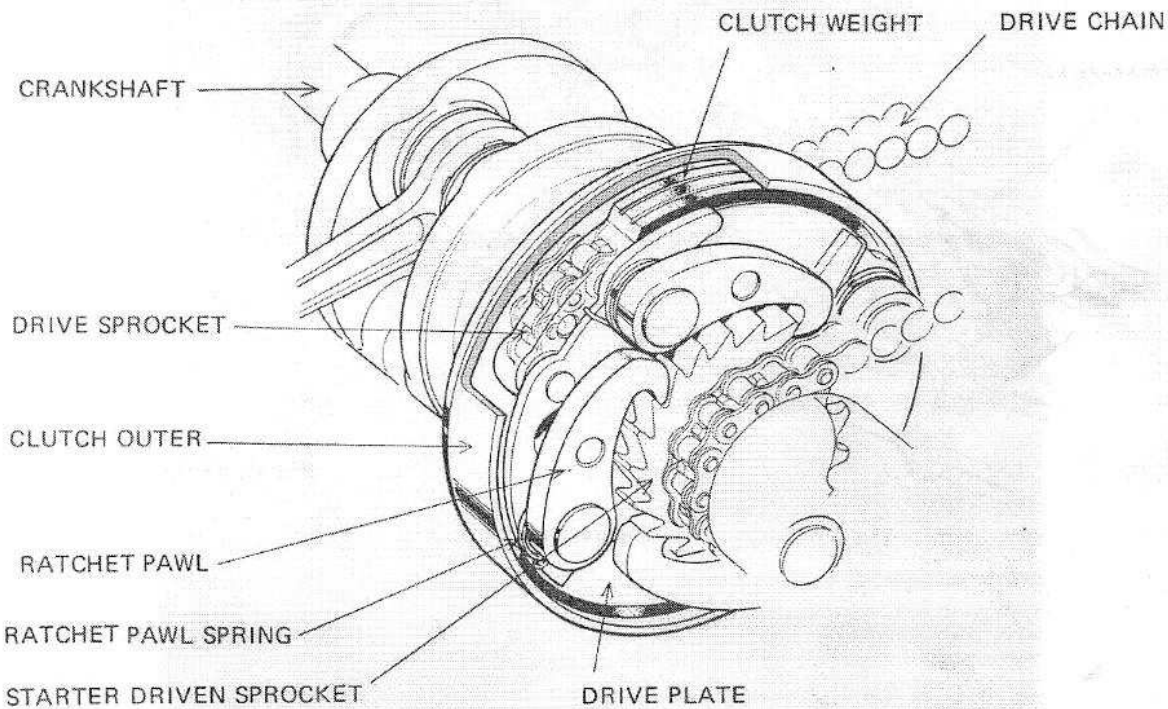
When the driven sprocket turns, the ratchet pawls engage the sprocket teeth. Since the drive plate is a tight taper fit to the stub end of the crankshaft, the crankshaft is rotated as the pawls engage the sprocket teeth; that is, the engine is started.

As the engine starts, centrifugal force on the ratchet pawls causes them to fly outward away from the drive sprocket. An equilibrium between the centrifugal force and the spring force is reached when the engine rotates at about 600 rpm, keeping the clutch off even at idle speed.

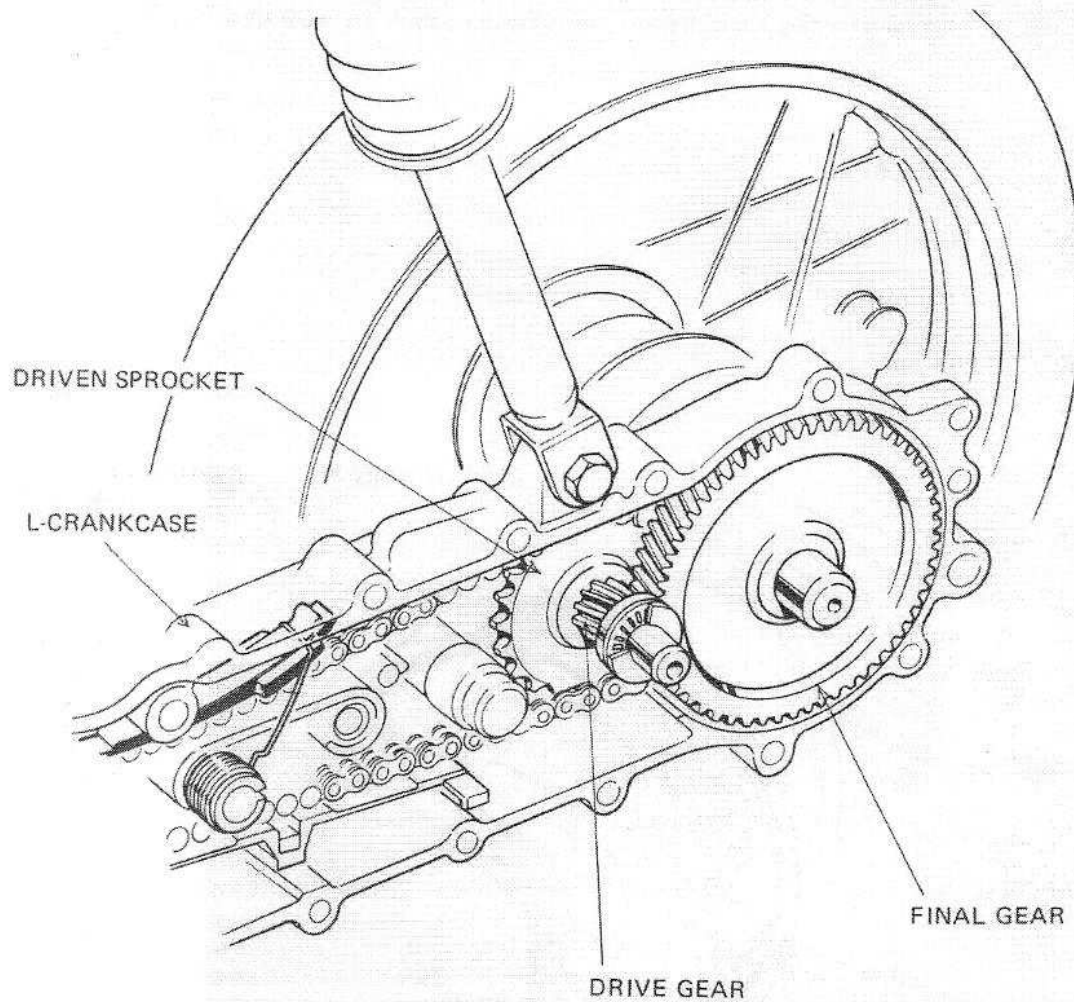
On the other hand, as the crankshaft rotates, the clutch weights are also flung radially outward and come into contact with the clutch outer. Power from the starter spring is then transmitted to the drive chain via the drive sprocket.

PERFORMANCE	IN	2,700 rpm
	LOCK	3,400 – 3,600 rpm
	OFF	2,500 rpm

* IDLE SPEED 1,800 rpm



4. The drive and final gears are of helical design for smoother, quieter operation over the entire range of speeds and loads of the engine (Reduction ratio: 73/11). The gears are bathed in oil stored in the L-crankcase to require least attention. The case also serves as a rear fork that is integrated with the engine and is capable of swinging up and down to absorb shocks or vibrations when the rear wheel encounters bumps or irregularities in the road.





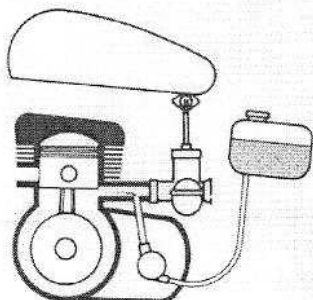
LUBRICATION SYSTEM

1. LUBRICATION SYSTEM OF 2-CYCLE ENGINE

Two-cycle crankcase scavenged engines have no storage space to hold the oil that is to be circulated (wet sump).

The lubricating system most commonly used on two-cycle crankcase scavenged engines may be dependent on "mixed" lube oil with fuel or on oil supplied through an independent channel into the crankcase.

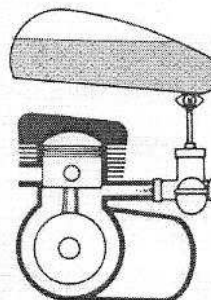
Honda NC50 employs the separate lubrication in that all bearings and moving parts are supplied with oil fed into the crankcase from a separate tank.



(1) SEPARATE LUBRICATION

All bearings and moving parts gain lubrication by oil fed into the crankcase from an independent oil tank.

Oil pumps are used to force oil from the oil tank into the crankcase and to control the amount delivered.

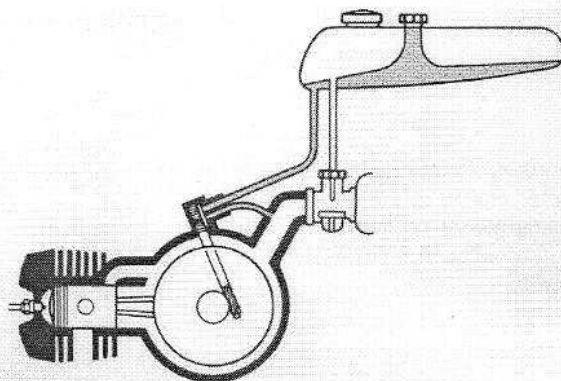


(2) "MIXED" LUBRICATION

Lube oil is mixed with fuel in the fuel tank in a designated proportion (usually 15:1 to 25:1). The above mixture then encounters and mixes with air moving through the carburetor to form the final air-fuel mixture. The mixture containing air is forced into the crankcase and goes through the crankcase bearings, connecting rod large ends and cylinder, thereby lubricating each component.

2. NC50 LUBRICATION SYSTEM

The separate lubrication system used on the NC50 is operated by a crankshaft driven plunger pump. The pump forces oil from the oil tank into the crankcase in exact proportion to the engine speeds and loads of the engine. This means reduced oil consumption and less carbon build-up in the combustion chamber.

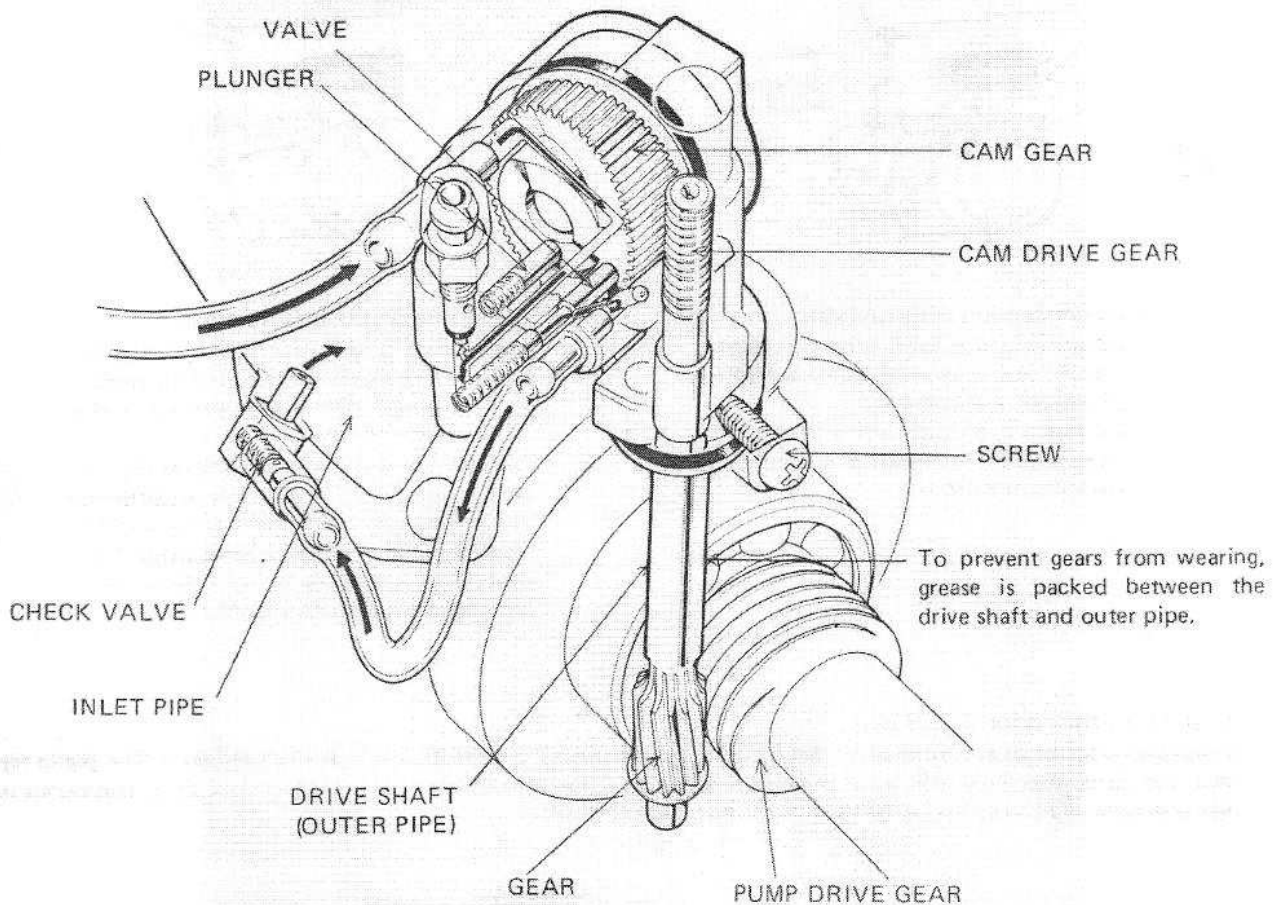




3. OIL PUMP

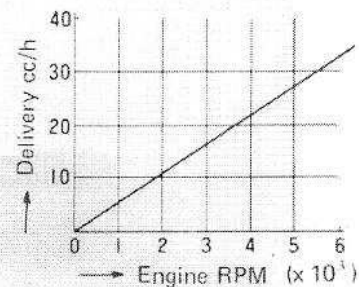
The pump is mounted at top of the crankcase with a screw. The pump drive gear, which is press fitted to the engine crankshaft, rotates the drive shaft (Reduction ratio: 1/4). The cam drive gear at the other end of the drive shaft rotates the cam gear with a reduction ratio of 1/22.

The pump itself consists of a plunger, a valve, a pump body and springs. Two stage cams, inside and outside, are formed on the side surface of the cam gear. The inside cam is for the plunger and the outside for the valve. (See next page for detail). The valve and plunger are held against the cam surfaces by means of the springs so that they move up and down in the pump body as the cams rotate according to the rotation of the cam gear.



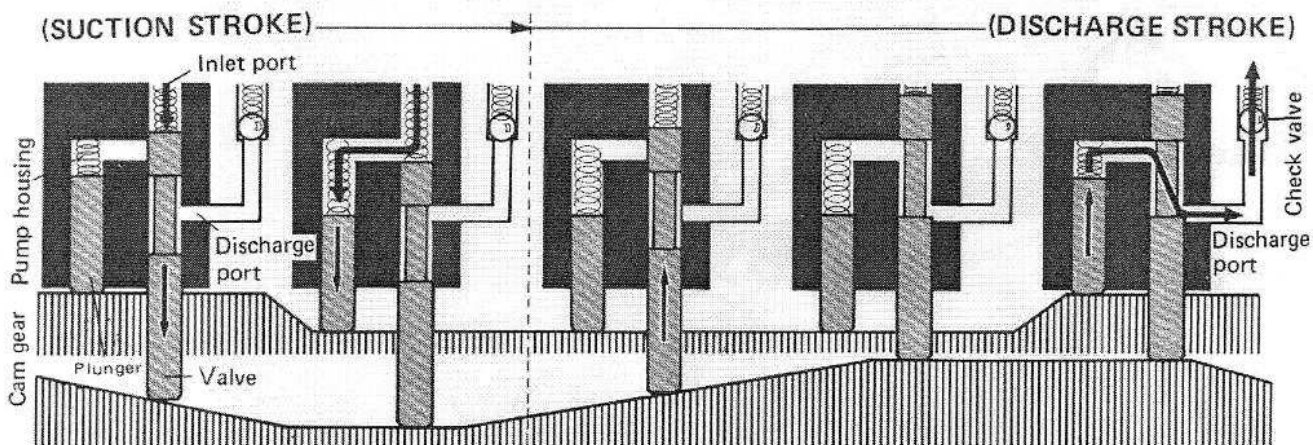
(FEATURES)

- Least affected by changes in oil viscosity (temperature), assuring steady delivery over the entire range of engine speeds and loads of the engine through use of small diameter plunger and valve
- Long, trouble-free life due to use of sintered cams on cam gear
- Compact and lightweight construction





— OPERATION —



①

Valve is at bottom dead center. Discharge port and pump port are blocked by valve.

②

Intake port opens. Oil flows into pump housing due to vacuum as plunger goes down.

③

At end of intake stroke, valve starts rising in body. Inlet port is blocked.

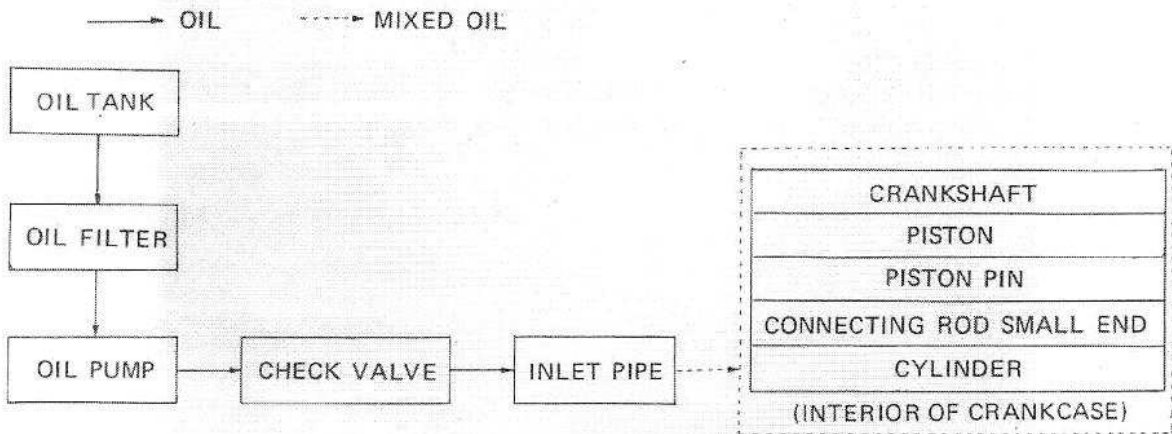
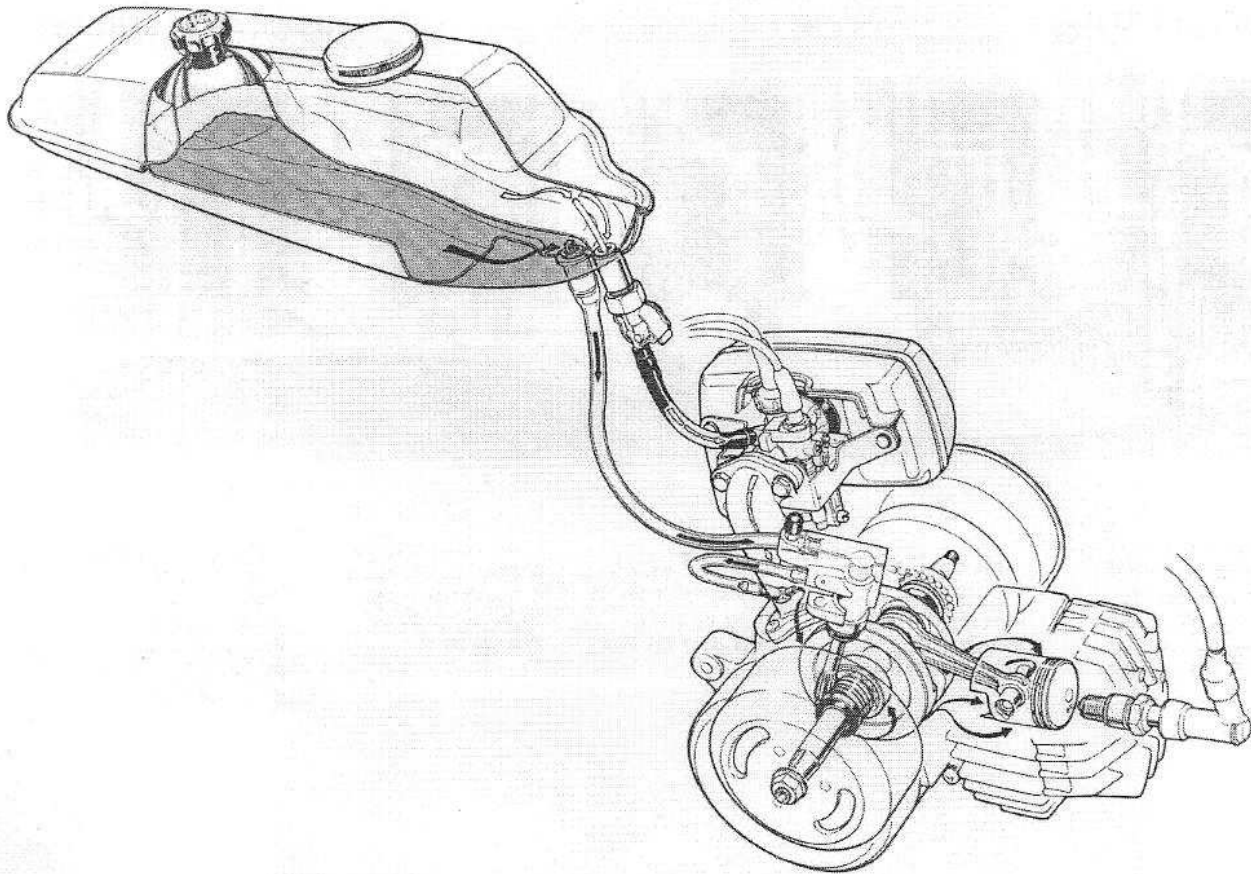
④

As valve rises further, pump housing is open to discharge port.

⑤

Plunger is pushed up by cam. Oil is forced into inlet pipe overcoming check valve spring force.

(LUBRICATING OIL FLOW)



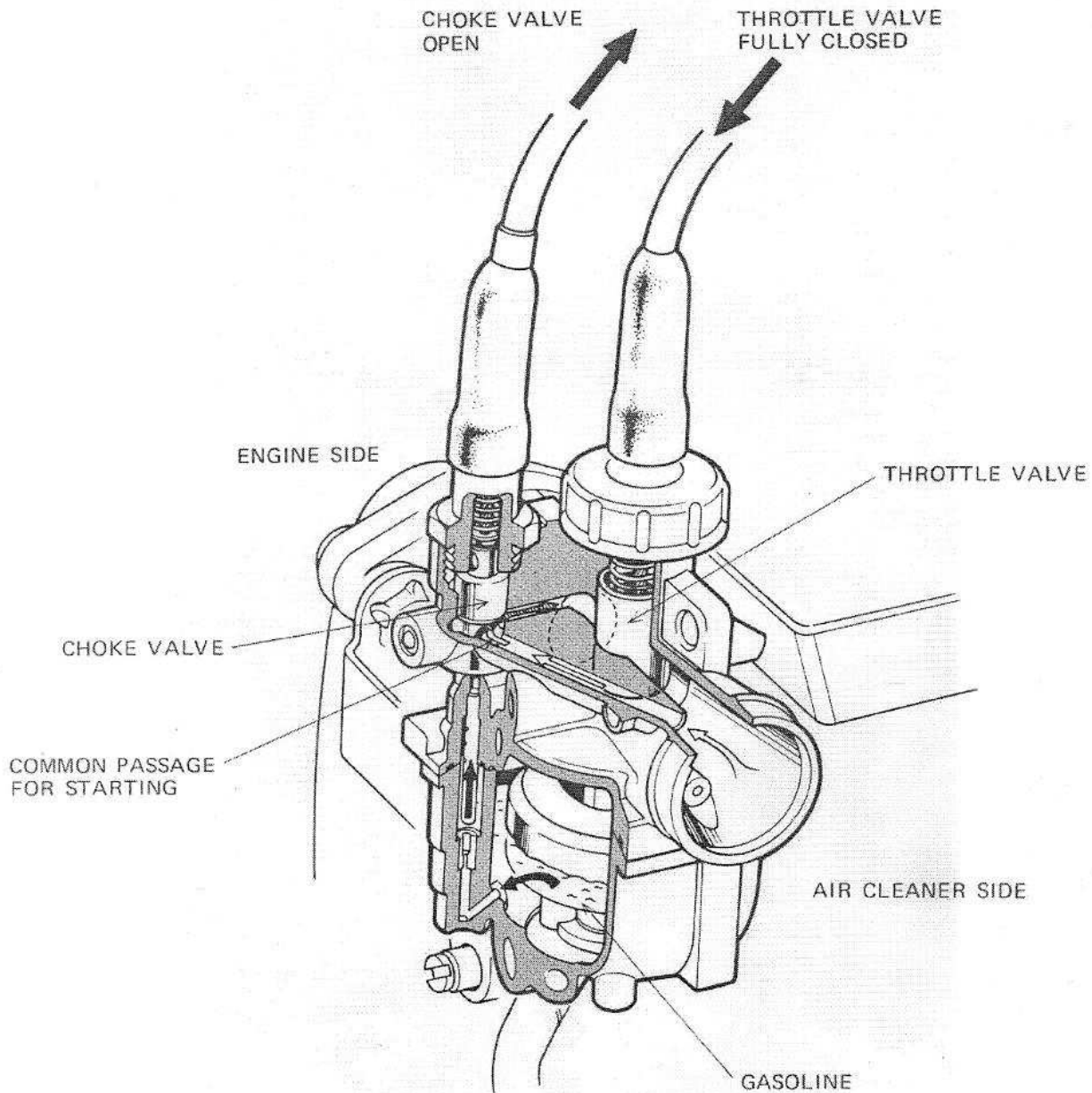


CARBURETOR

The carburetor is of a piston type that is equipped with a choke valve. The choke valve provides a very rich mixture when the engine is being cranked.

(CHOKE CIRCUIT)

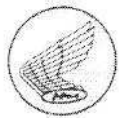
Pulling the choke lever in causes the choke valve to open. Thus, when the engine is cranked with the throttle valve fully closed, a high vacuum is developed in the air horn on the engine side of the throttle valve. This vacuum causes the choke valve to discharge a heavy stream of fuel to produce the rich air-fuel mixture needed for starting the engine.



HONDA
NC50



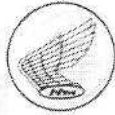
MEMO



HONDA
NC50

SERVICING PROCEDURES

7. SERVICE PRECAUTIONS
8. INSPECTION/ADJUSTMENT
9. ENGINE REMOVAL/INSTALLATION
10. Engine CYLINDER HEAD/CYLINDER/PISTON
11. Engine OIL PUMP
12. Engine A.C. GENERATOR
13. Engine L. COVER/STARTER
14. Engine CLUTCH/FINAL GEAR
15. Engine CRANKCASE/CRANKSHAFT
16. Engine CARBURETOR
17. Frame HANDLEBAR/FRONT FORK/FRONT WHEEL
18. Frame REAR WHEEL/REAR BRAKE
19. Frame REAR SHOCK ABSORBER/FUEL TANK
20. ELECTRICAL
21. SPECIAL TOOLS
22. MAINTENANCE SCHEDULE
23. TORQUE SPECIFICATIONS
24. SERVICE DATA
25. TROUBLE SHOOTING
26. SPECIFICATIONS
27. WIRING DIAGRAM



SERVICE PRECAUTIONS

<p>■ Never fail to obey the following cautions during service operation, since the starter spring may cause hazard.</p> <p>(1) Before servicing, make sure that starter spring is released by depressing pedal and squeezing rear brake lever.</p> <p>(2) Do not hand-rotate generator rotor clockwise.</p> <p>(3) Do not depress starter pedal unless necessary.</p>	
<p>■ Always replace whenever reassembled.</p> <p>O-RING</p> <p>GASKET</p> <p>COTTER PIN</p>	<p>■ Wash clean engine parts with solvent. Lubricate their sliding surfaces with 2-cycle oil whenever disassembled.</p> <p>SOLVENT</p> <p>OIL</p>
<p>■ Tighten fasteners, beginning on center or larger dia. bolts to specs, where sequence is not specified, in a X pattern.</p> <p>IN A X PATTERN</p>	<p>■ Grease by coating or filling where specified as such.</p>
<p>■ Use HONDA or HONDA-recommended parts and lubricants.</p>	<p>■ After reassembling, check every possible part for proper installation, movement or operation.</p>
<p>■ Use special tool where so specified.</p>	<p>■ Always check mutual safety when working with partner.</p>

— SYMBOLS —

These symbols are used throughout the manual to show specific kinds of operation, sequence of service procedures, etc.

①, ②, ③ ... : Indicates sequence of service operations.



: Apply oil.

GREASE

: Apply grease.

WARNING

: Means the possibility of personal injury to yourself or others.

CAUTION

: Means the possibility of damage to the machine.

NOTE

: Provides torque values and special information for more efficient and convenient servicing.

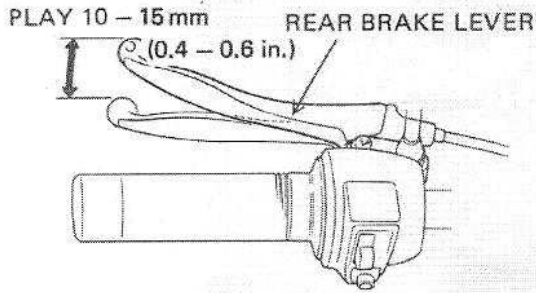


INSPECTION/ADJUSTMENT

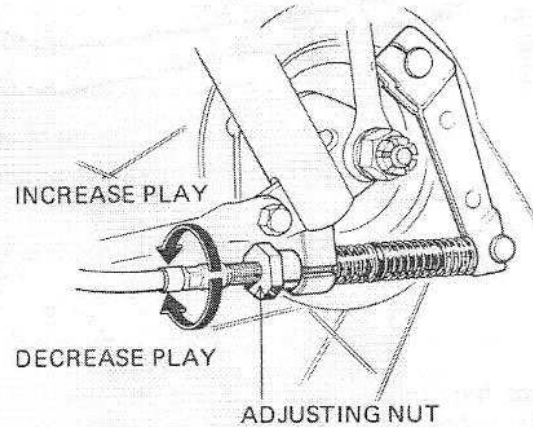
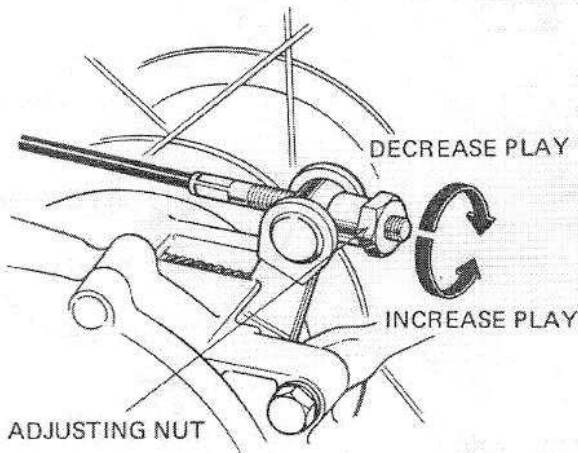
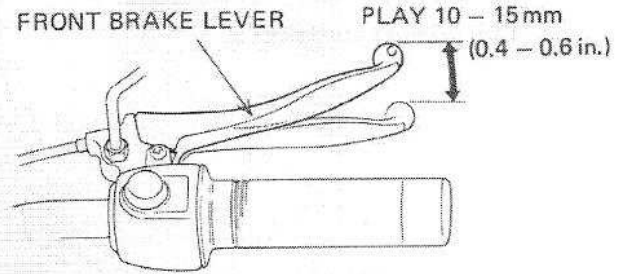
(BRAKE LEVER ADJUSTMENT)

Check brake lever play at lever tip. If out of specs., adjust by turning adjusting nut.

(REAR)



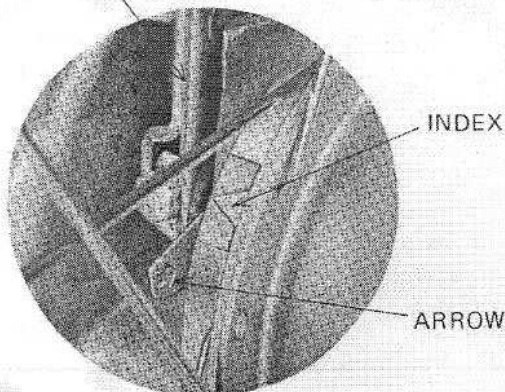
(FRONT)



To reset the brake arm, refer to page 17-2 (front brake), page 18-1 (rear brake).

BRAKE ARM

(BRAKE SHOE INSPECTION)



Replace shoe if arrow mark on brake indicator aligns with index, when lever is pulled in all the way.

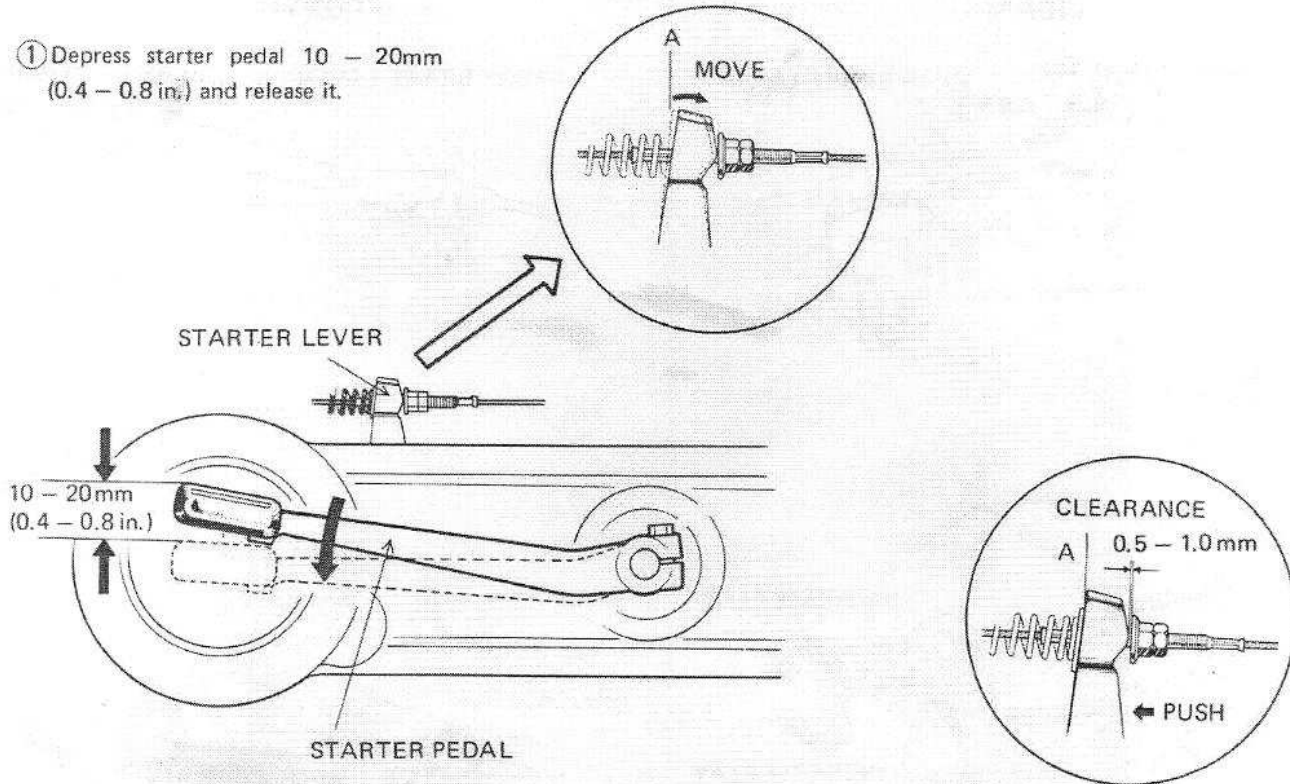
Be sure to check the proper starter spring operation, after adjusting rear brake lever free play (page 8-2).



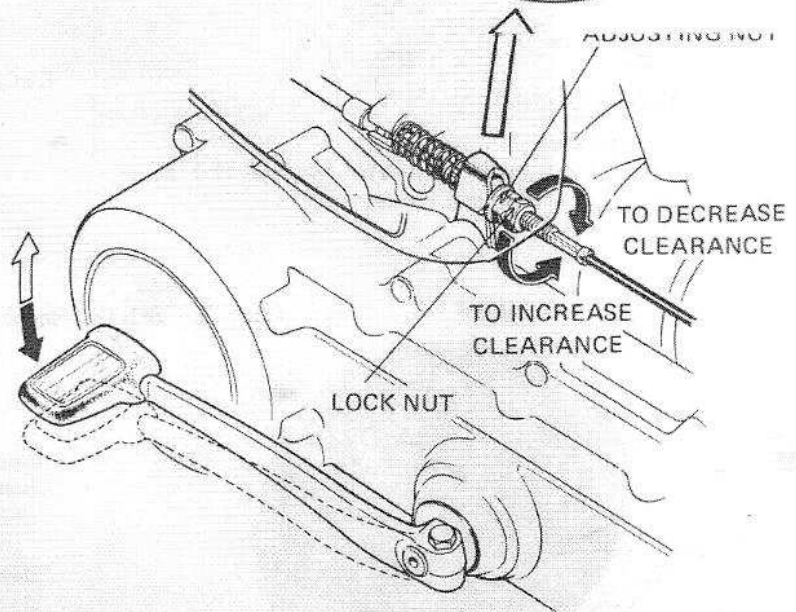
(STARTER LEVER ADJUSTMENT)

This adjustment is essential to achieve proper starter spring operation. Prior to this adjustment, check rear brake lever free play and adjust if necessary (page 8-1).

- ① Depress starter pedal 10 – 20mm (0.4 – 0.8 in.) and release it.



- ② Adjust lever-to-nut clearance to 0.5 – 1.0mm (0.02 – 0.04 in.) from upper most forward position (A).

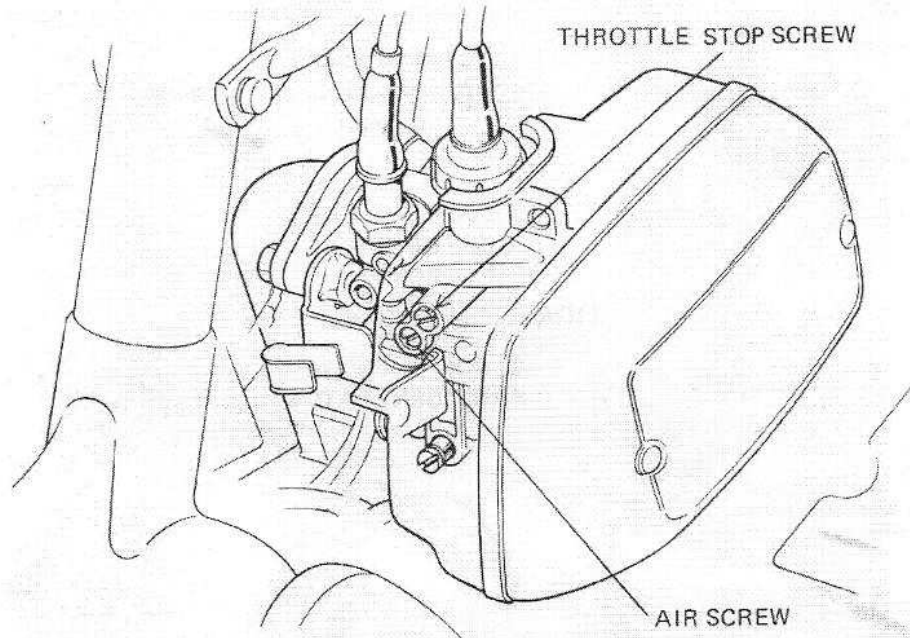


- ③ Start and stop the engine a few times (more than five times with new rear brake cable) and check that the clearance has not changed. If necessary repeat steps ① and ② above.



INSPECTION/ADJUSTMENT

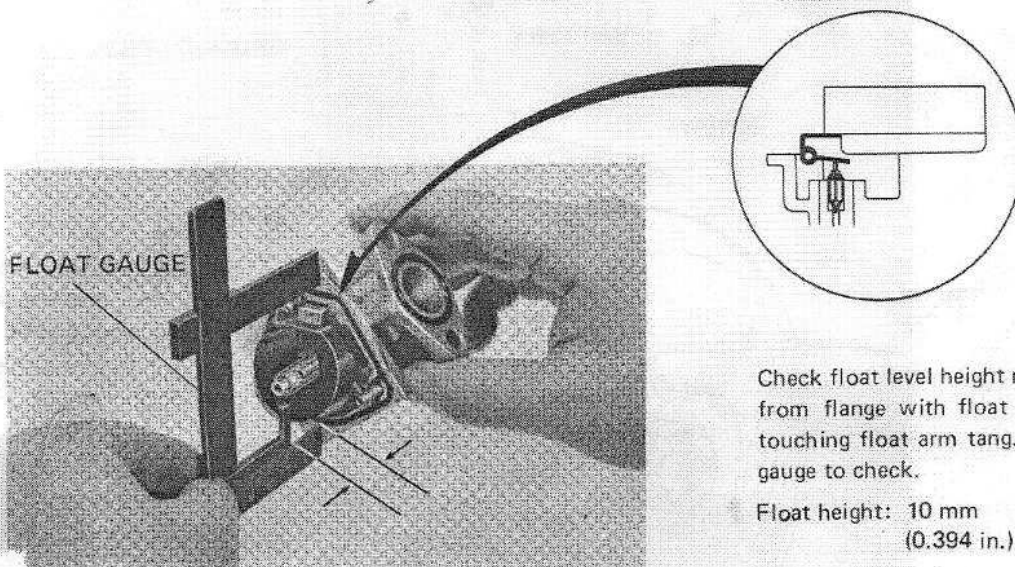
(IDLE ADJUSTMENT)



- ① Start the engine and set it at lowest idle speed by turning the throttle stop screw.
- ② Turn the air screw either in or out to obtain the highest idle speed.
- ③ Screw the air screw in $1/8 - 1/4$ turns.
- ④ Adjust the throttle stop screw to allow the engine to run at an idle speed. Rotation of stop screw in a clockwise direction increases speed.

IDLE SPEED: 1,800 rpm.

(FUEL LEVEL)

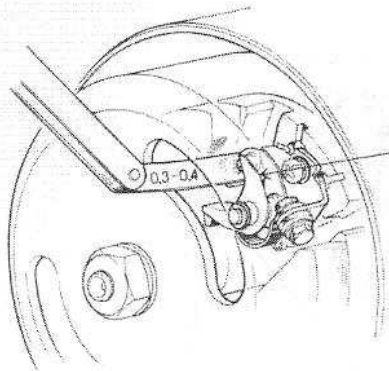


Check float level height measured from flange with float valve just touching float arm tang. Use float gauge to check.

Float height: 10 mm
(0.394 in.)



(CONTACT BREAKER POINT GAP)

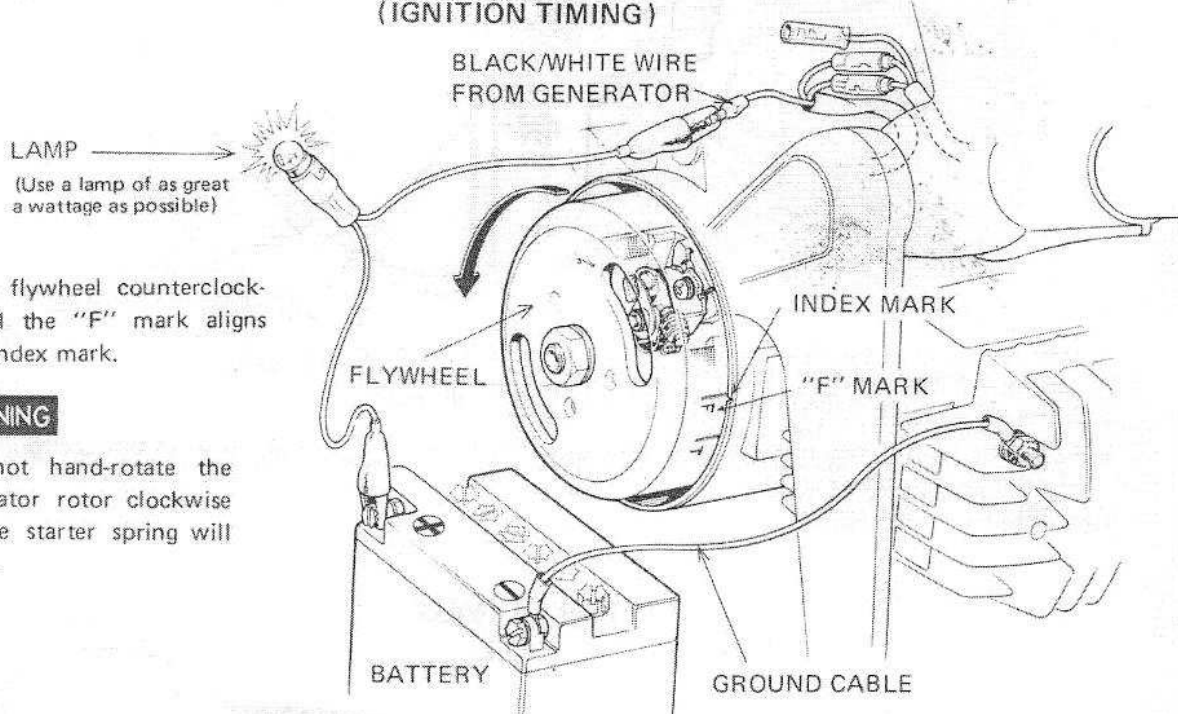


① Insert a feeler gauge through the rotor hole.

② Check point gap.
Replace if out of specs.. (0.3 – 0.4mm)

0.3 – 0.4mm
(0.012 – 0.016 in.)

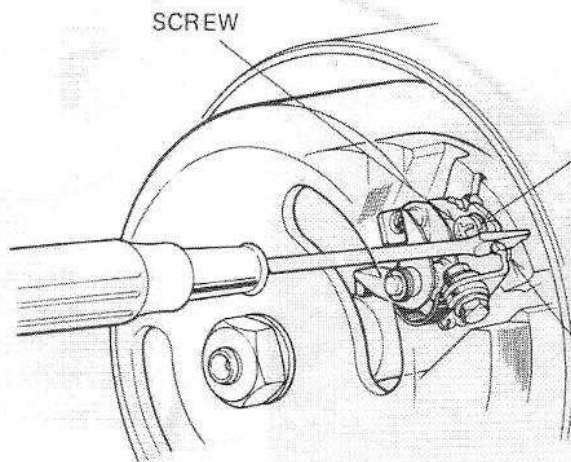
(IGNITION TIMING)



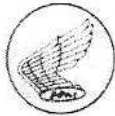
① Turn the flywheel counterclockwise until the "F" mark aligns with the index mark.

WARNING

Do not hand-rotate the generator rotor clockwise as the starter spring will wind.



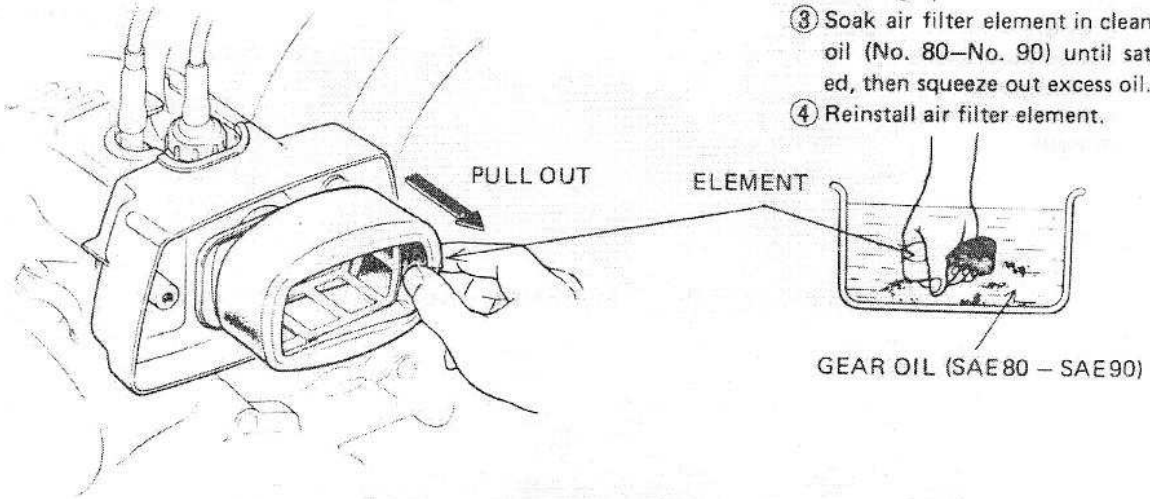
② To adjust, loosen the base screw and move the base to get the correct ignition timing where lamp becomes dim with marks aligned.



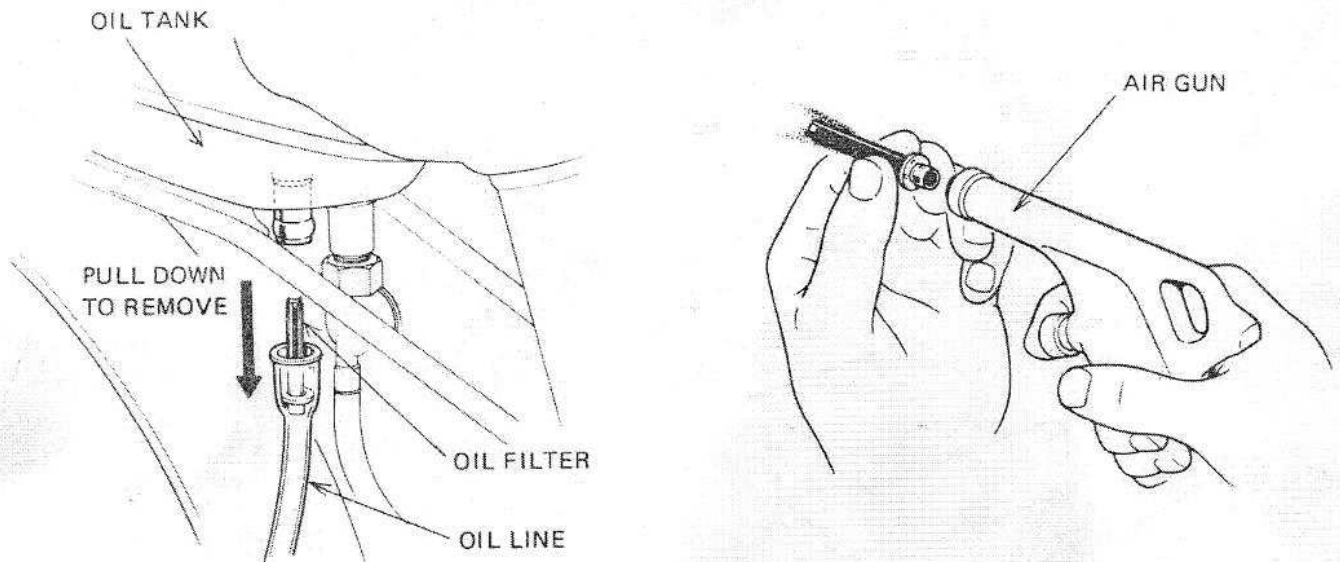
INSPECTION/ADJUSTMENT

(AIR CLEANER ELEMENT)

- CAUTION**
- ① Remove air filter element.
 - ② Wash air filter element in clean stoddard solvent and allow to dry thoroughly.
 - ③ Soak air filter element in clean gear oil (No. 80–No. 90) until saturated, then squeeze out excess oil.
 - ④ Reinstall air filter element.



(OIL FILTER CLEANING)

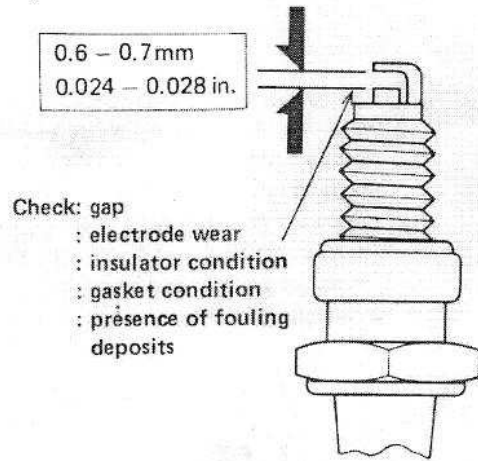


CAUTION

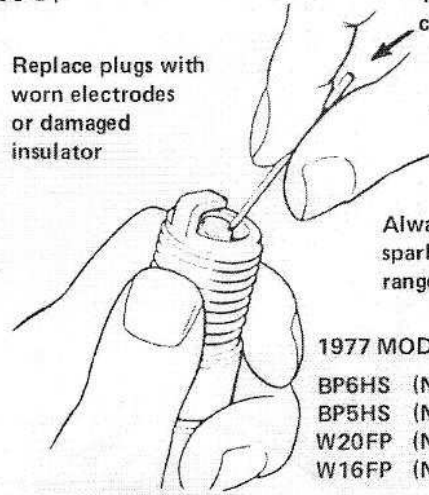
- Empty the oil tank before cleaning.
- Bleed the air from the oil line and the oil pump after cleaning.
- Fill the oil tank with oil and then bleed the air from the oil line. Page 8 – 7.



(SPARK PLUG)



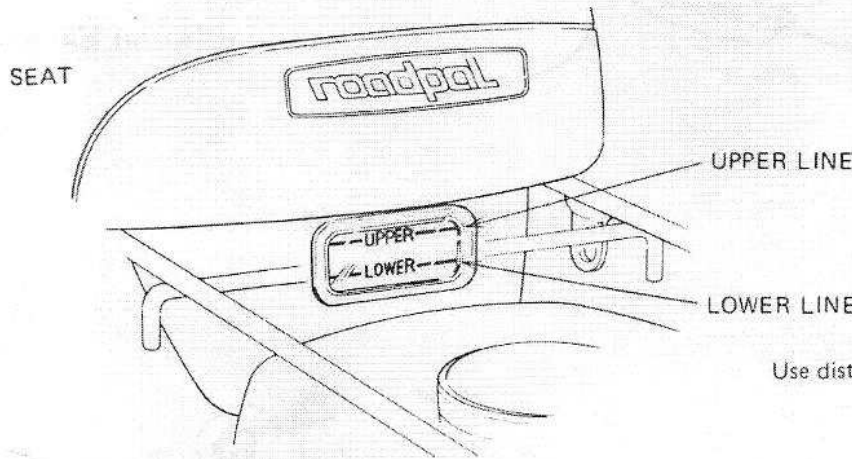
Replace plugs with worn electrodes or damaged insulator



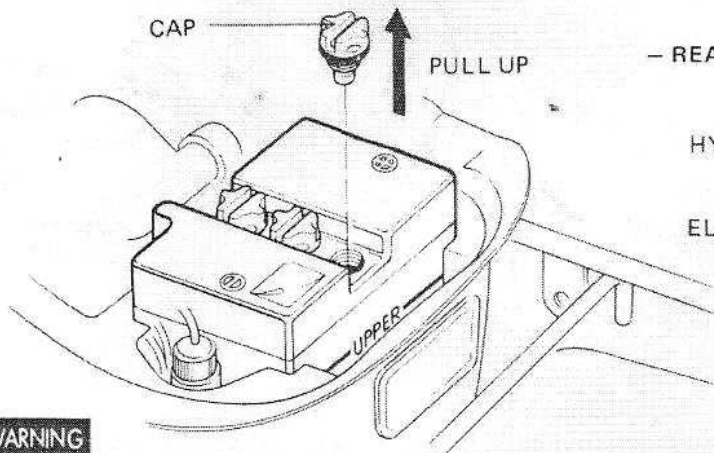
1977 MODEL
BP6HS (NGK)
BP5HS (NGK)
W20FP (ND)
W16FP (ND)

1978 MODEL
BP5HS (NGK)
BP4HS (NGK)
W16FP (ND)
W14FP-L (ND)

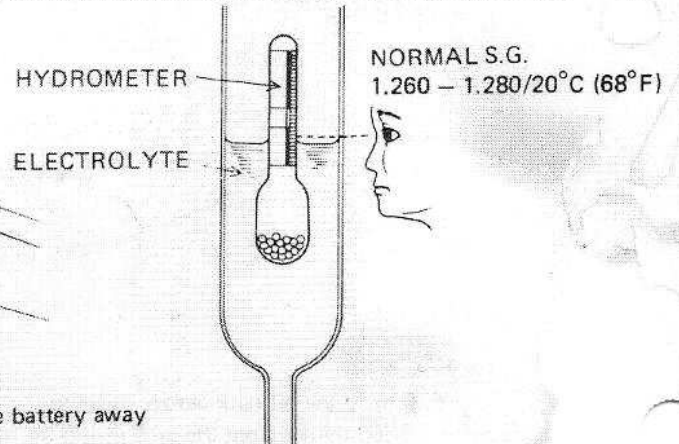
(BATTERY ELECTROLYTE LEVEL CHECK/REPLENISHMENT)



Use distilled water to raise electrolyte level.



— READING SPECIFIC GRAVITY OF ELECTROLYTE —



WARNING

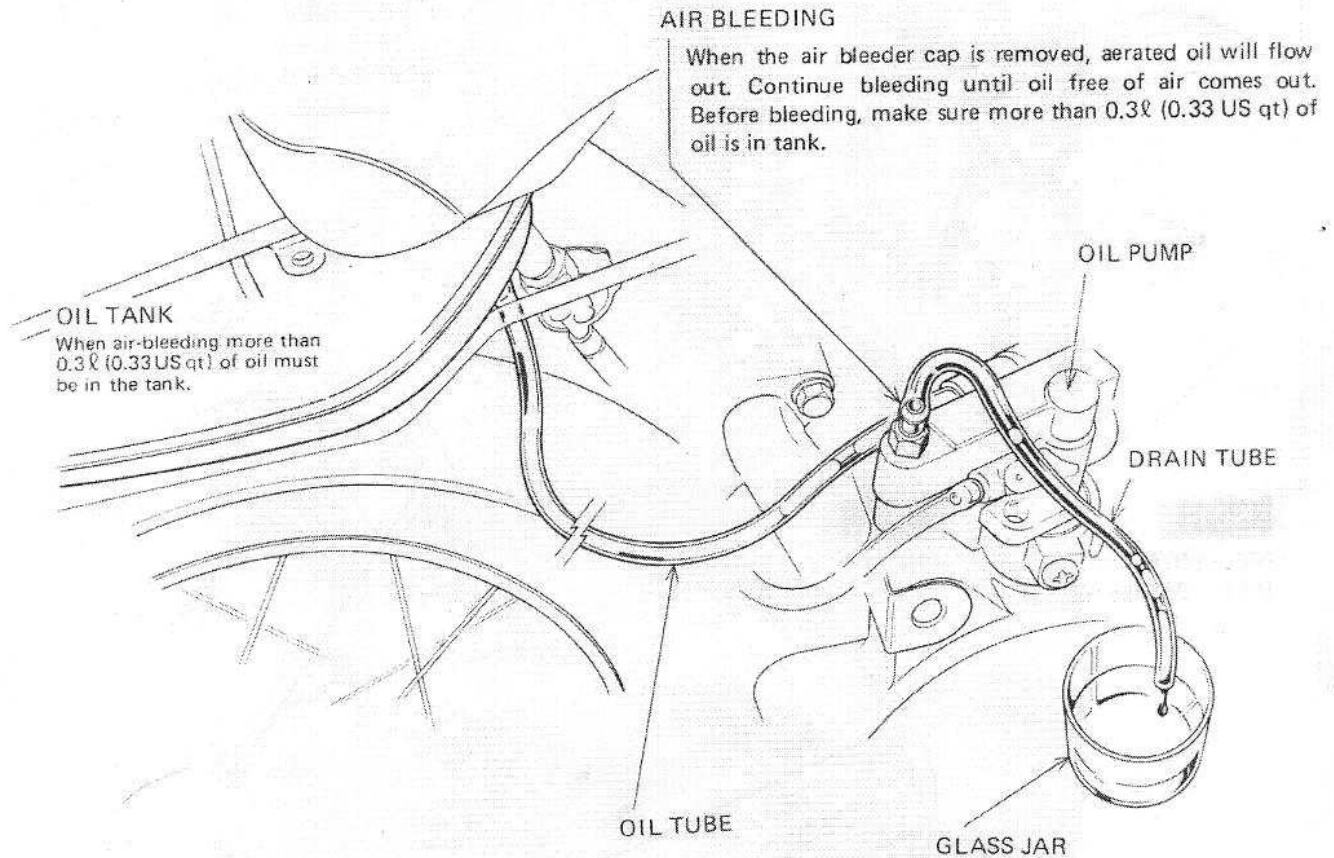
- Do not service the battery while the engine is running. Keep the battery away from open flames or sparks.
- Avoid overfilling the battery. Sulfuric acid is very corrosive.



(BLEEDING OIL PUMP)

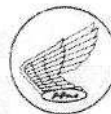
The oil pump and the oil line must be bled to eliminate air whenever.

- The oil line disconnected.
- The oil supply is completely used up.
- The engine is removed.



(L. COVER OIL REPLACEMENT/LEVEL CHECK)

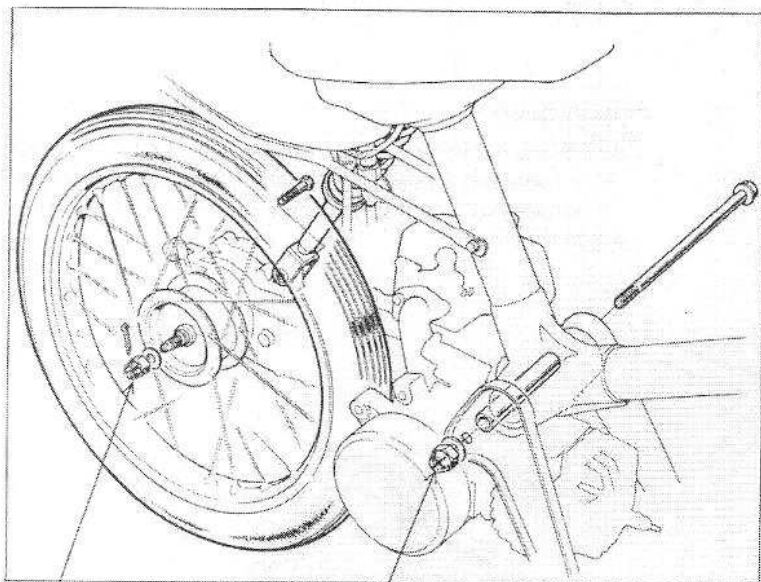
PAGE 13 - 2



ENGINE REMOVAL/ INSTALLATION

All service operations except crankshaft work may be performed with the engine in the frame.

- ① REAR SHOCK ABSORBER BOLT/ENGINE MOUNTING BOLT/
REAR WHEEL/MAIN STAND

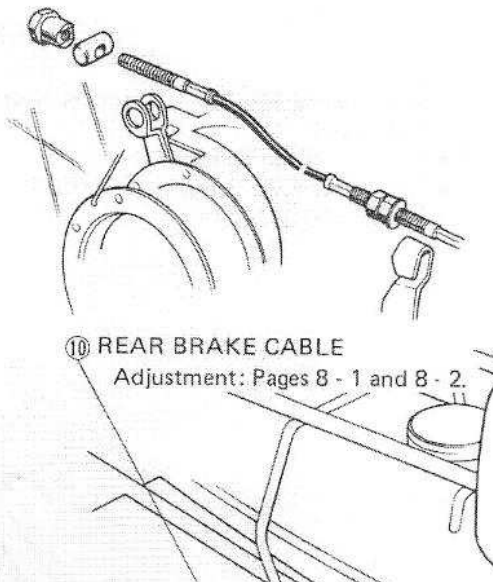


NOTE

400 – 500 kg · cm
(28.9 – 36.2 lbs · ft)

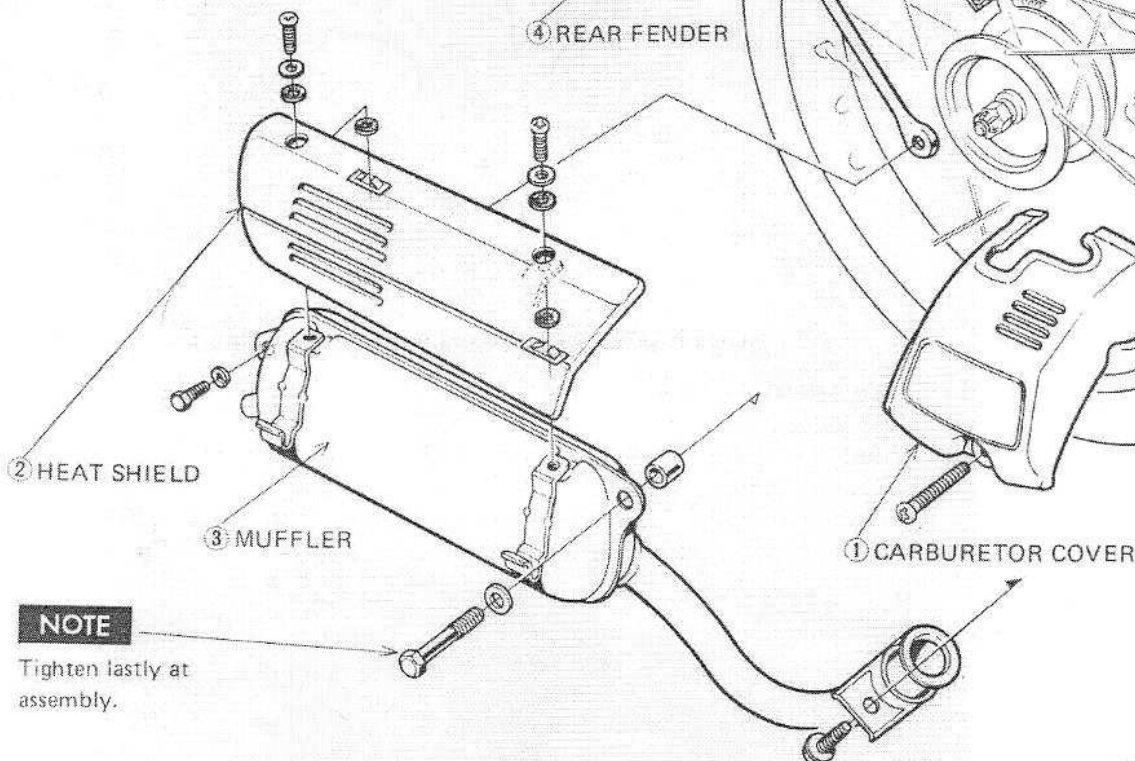
NOTE

300 – 400 kg · cm
(21.7 – 28.9 lbs · ft)



- ⑩ REAR BRAKE CABLE

Adjustment: Pages 8 - 1 and 8 - 2.



- ② HEAT SHIELD

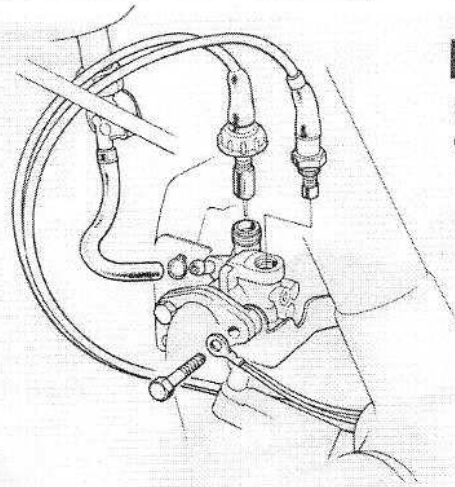
- ③ MUFFLER

- ④ REAR FENDER

- ① CARBURETOR COVER

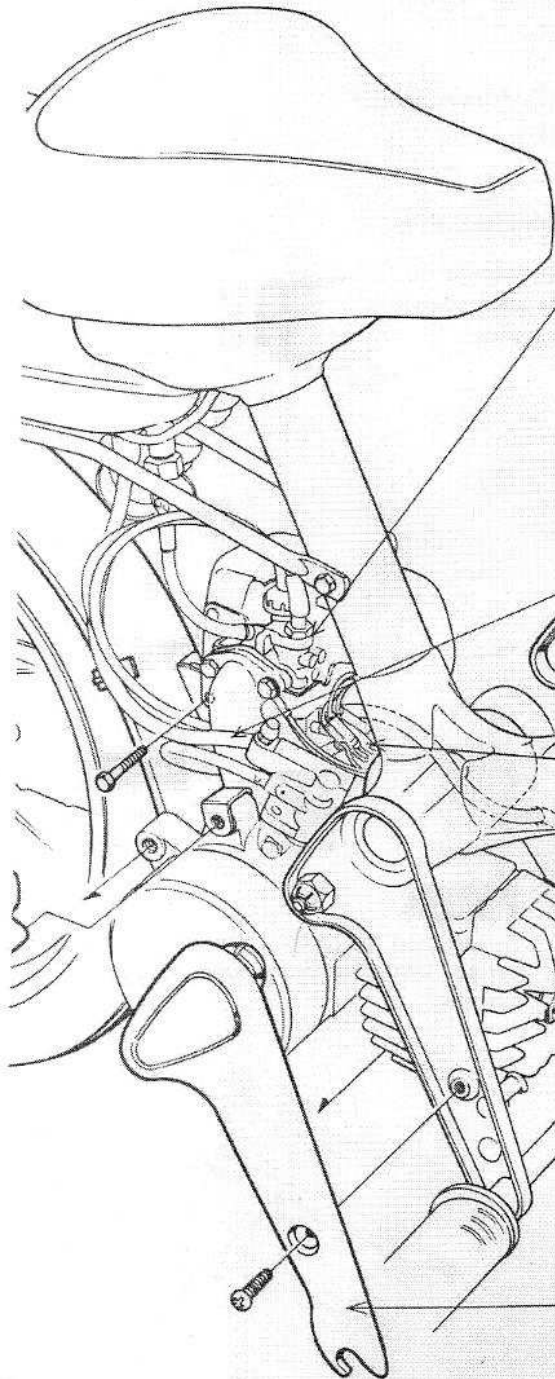
NOTE

Tighten lastly at assembly.



NOTE

Keep fuel cock closed during disassembly.



⑦ CARBURETOR/AIR CLEANER

CAUTION

Bleed air after assembly.

Page 8 - 7 "BLEEDING OIL PUMP."

⑧ OIL TUBE

NOTE

Plug tube end.

⑨ PRIMARY WIRE

NOTE

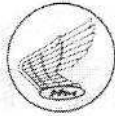
Connect color-to-color.

⑥ SPARK PLUG CAP

⑤ R/L STEP COVERS

10 Engine CYLINDER HEAD/CYLINDER/ PISTON

HONDA
NC50



WARNING

Before operation, make sure that starter spring is released.
During operation, do not depress it.



① REAR SHOCK ABSORBER
LOWER BOLT

② ADJUST HEIGHT SO THAT
CYLINDER HEAD CAN BE
REMOVED.

NOTE

Place block here to
avoid rolling ahead.

PISTON PIN CLIPS

NOTE

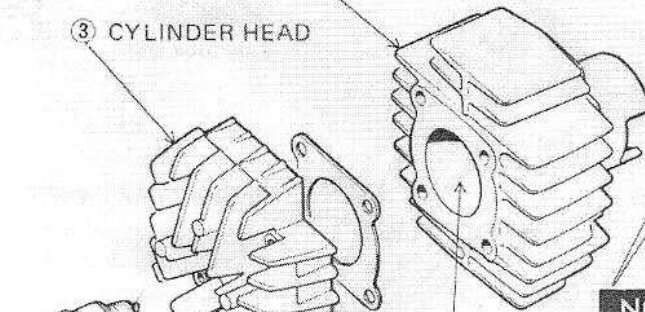
At assembly,
install new wrist
pin clip.



⑤ PISTON

④ CYLINDER

③ CYLINDER HEAD



NOTE

Replace when
disassembled.

NOTE

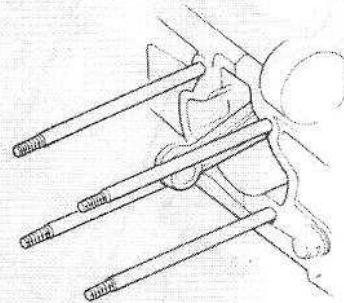
Be sure that the piston rings move freely
before installing the piston into the
cylinder.

NOTE

90 – 120 kg - cm
(6.5 – 8.7 lbs-ft)



Install cylinder head with
"EX" toward EXHAUST.



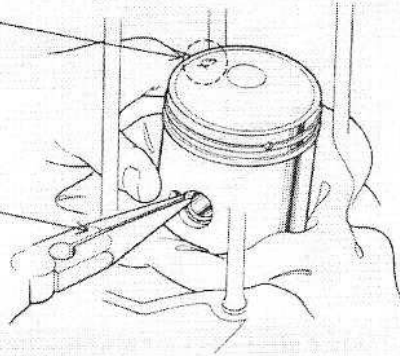


(PISTON)

• DISASSEMBLY/ASSEMBLY

Install piston with the "EX" mark facing toward the EXHAUST PORT.

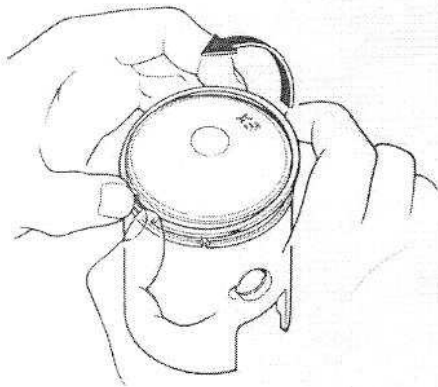
Place a rag over the crankcase opening to prevent the wrist pin clip from falling into the crankcase.



CAUTION

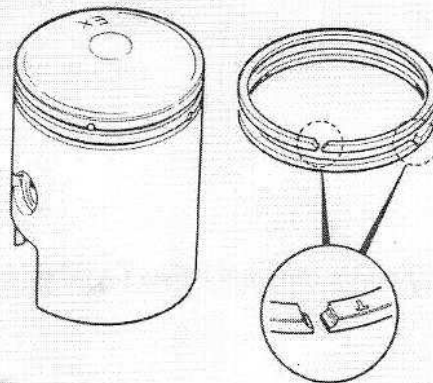
Avoid scoring or scratching the piston.

(PISTON RING)



• DISASSEMBLY

Always remove piston ring as shown above.



• ASSEMBLY

Install the piston rings with their markings facing upward. Whenever the rings are replaced ensure that the proper rings are installed.

N: NIPPON PISTON RING
T: TEIKOKU PISTON RING

Top ring: 1N or 1T

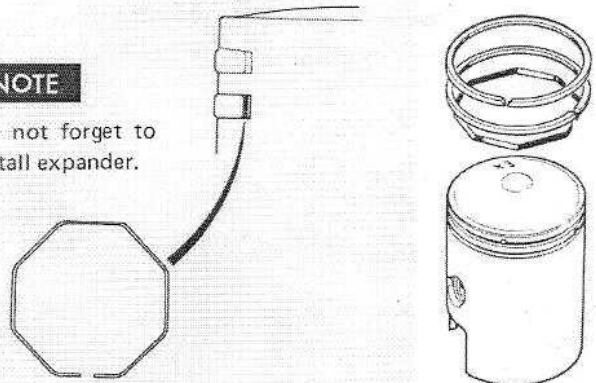
2nd ring: 2N or 2T

CAUTION

Be careful not to damage piston during operation.

NOTE

Do not forget to install expander.

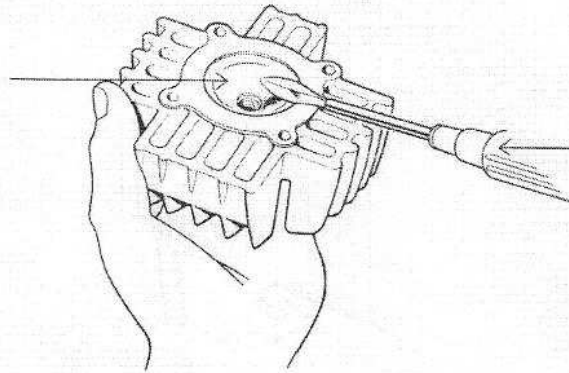




(CYLINDER HEAD DECARBONIZING)

CAUTION

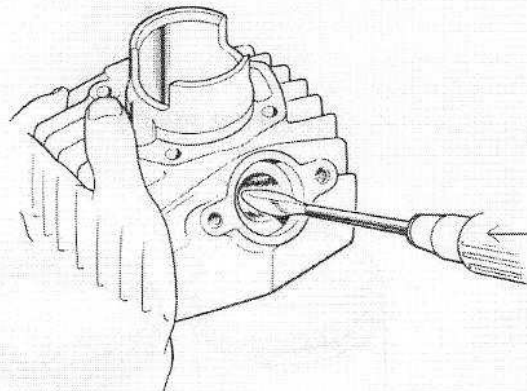
Avoid scratching
inside the surfaces.



Wipe clean after decarbonizing.

SCRAPER

(EXHAUST PORT DECARBONIZING)



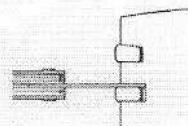
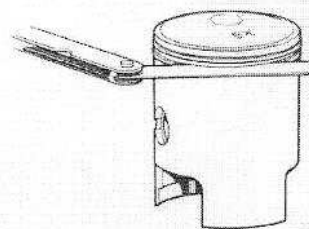
Wipe clean after decarbonizing.

SCRAPER

(PISTON/PISTON RING CLEARANCE)

2nd Ring

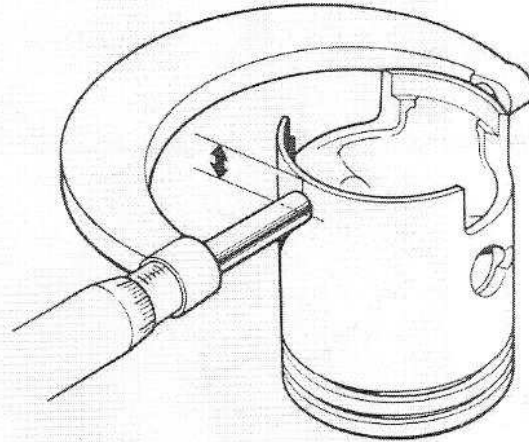
0.025 – 0.055mm (0.0010 – 0.0022 in.)
Service Limit: 0.1mm (0.0039 in.)





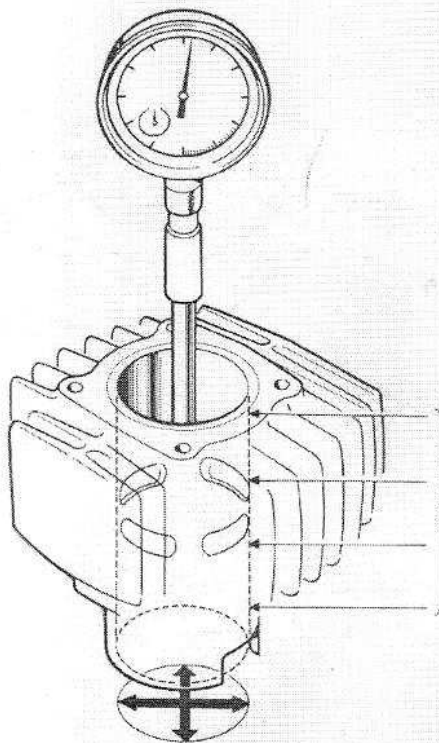
(PISTON SKIRT O.D.)

39.955 – 39.975mm (1.5731 – 1.5739 in.)
Service Limit: 39.85mm (1.5689 in.)



Measurements should be taken at
point 4mm (0.16 in.) from bottom.

(CYLINDER I.D.)



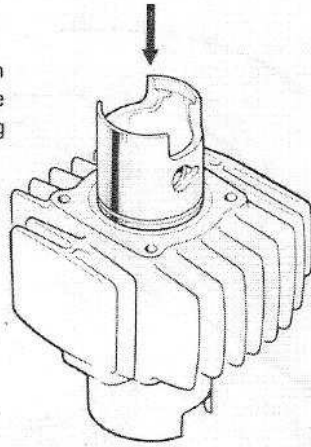
40.00 – 40.01mm (1.5748 – 1.5752 in.)
Service Limit: 40.05mm (1.5768 in.)

Take smallest diameter reading.

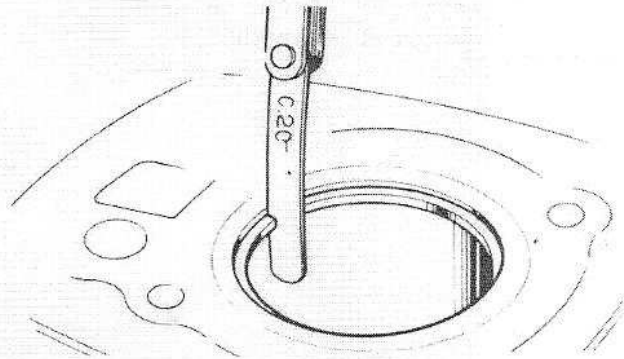


(PISTON RING END GAP)

Push the rings down squarely into the cylinder bore using the piston head.

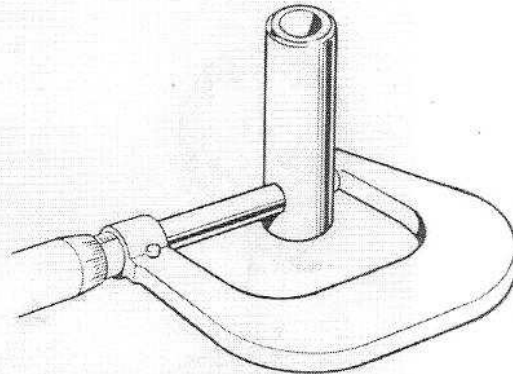


0.15 – 0.35mm (0.0059 – 0.0138 in.)
Service Limit: 0.6mm (0.0236 in.)



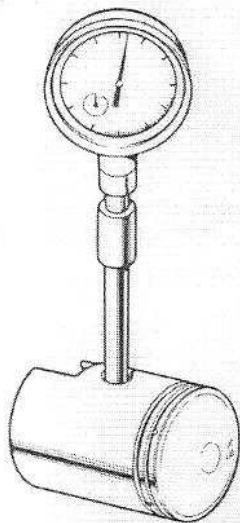
(PISTON PIN O.D.)

9.994 – 10.000mm (0.3935 – 0.3937 in.)
Service Limit: 9.97mm (0.3925 in.)



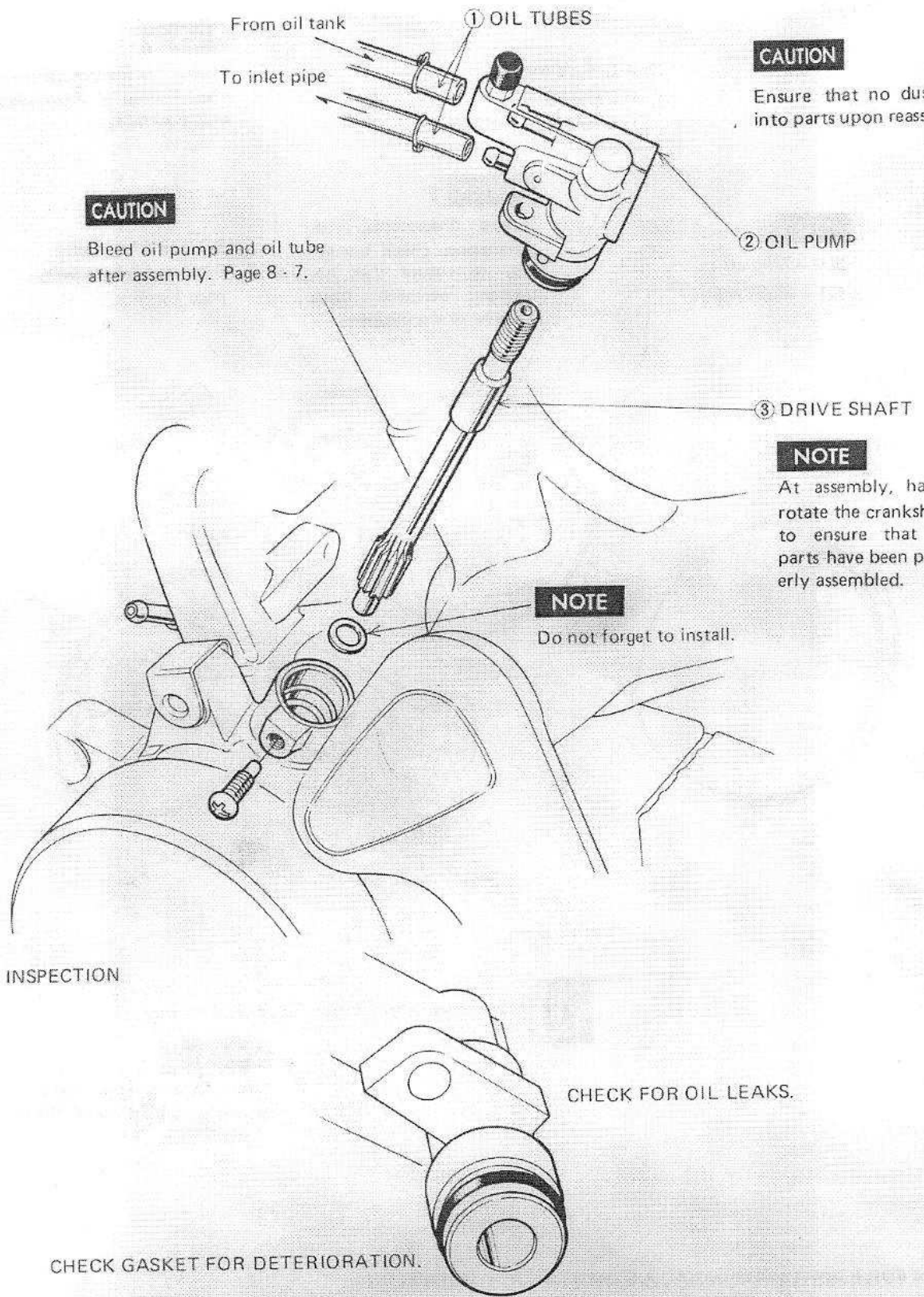
(PISTON PIN HOLE I.D.)

10.002 – 10.008mm (0.3938 – 0.3940 in.)
Service Limit: 10.03mm (0.3949 in.)





Engine OIL PUMP



CAUTION

Ensure that no dust gets into parts upon reassembly.

CAUTION

Bleed oil pump and oil tube after assembly. Page 8 - 7.

② OIL PUMP

③ DRIVE SHAFT

NOTE

At assembly, hand-rotate the crankshaft to ensure that all parts have been properly assembled.

NOTE

Do not forget to install.

• INSPECTION

CHECK FOR OIL LEAKS.

CHECK GASKET FOR DETERIORATION.



Engine A.C. GENERATOR

WARNING

Never turn flywheel clock-wise during disassembly and reassembly.

- ② A.C. FLYWHEEL GENERATOR
 Disassembly/assembly,
 page 12 - 2.

CAUTION

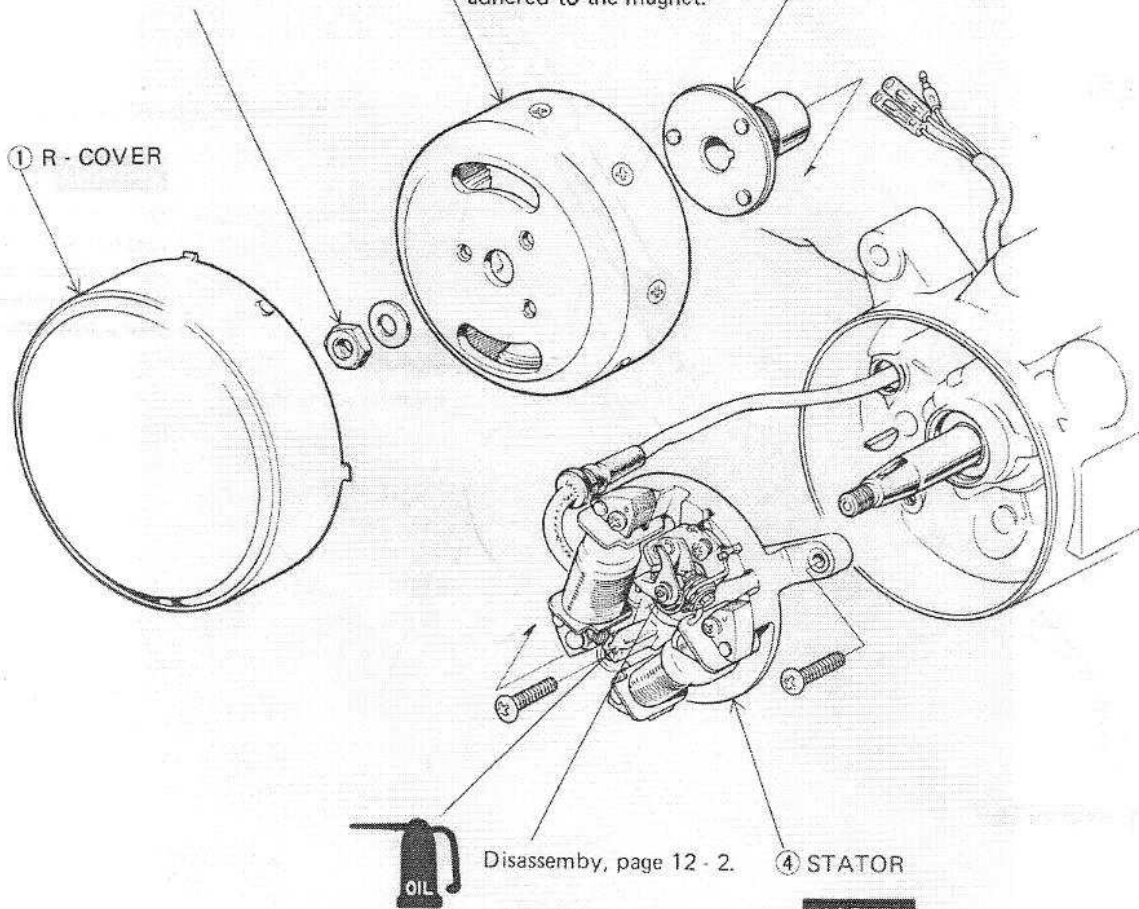
During disassembly and installation, check the inside to ensure that no foreign particles have adhered to the magnet.

- ③ ROTOR FLANGE
 Disassembly/assembly,
 page 12 - 2.

NOTE

300 - 350 kg - cm
 (21.7 - 25.3 lbs-ft)

- ① R - COVER



Disassembly, page 12 - 2.

- ④ STATOR

NOTE

Prior to installing, route the generator cable through the hole in the case.

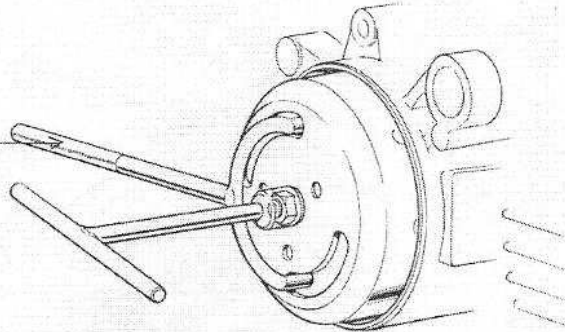
▪ PAGE 8 - 4 FOR IGNITION TIMING ADJUSTMENT AFTER ASSEMBLING.



(FLYWHEEL DISASSEMBLY/ASSEMBLY)

FLYWHEEL HOLDER
(No. 07925-0010001)

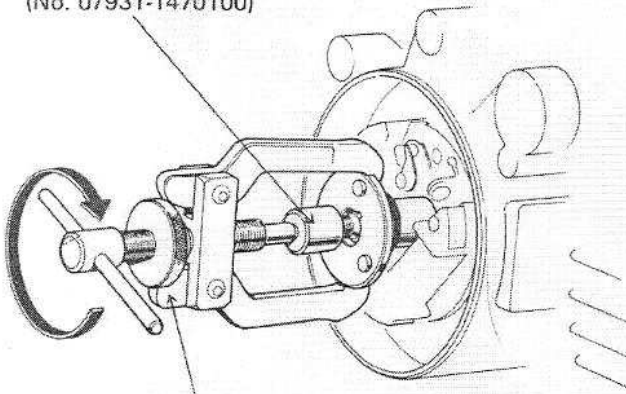
S TOOL



• DISASSEMBLY

(ROTOR FLANGE)

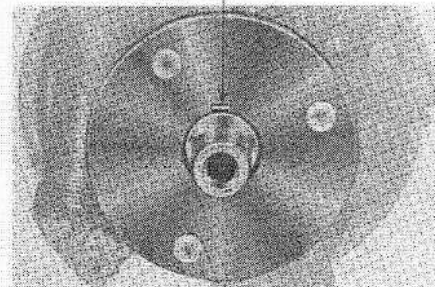
ACG. PULLER ATTACHMENT
(No. 07931-1470100)



PULLER

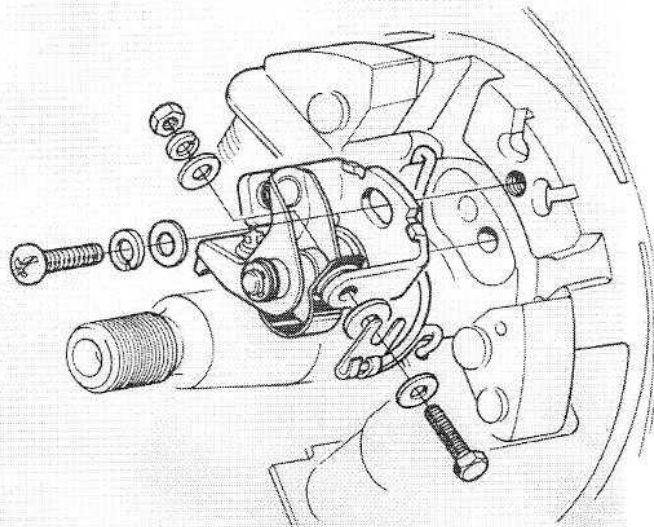
• INSTALLATION

Align the key with the keyway.

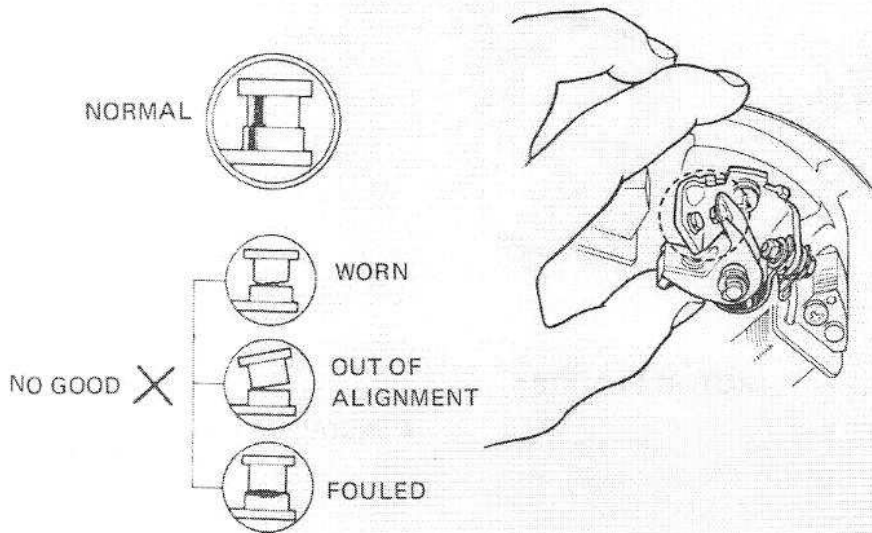


(CONTACT BREAKER DISASSEMBLY)

After installation, check
and adjust the point gap
and the ignition timing if
required, page 8 - 4.



(CONTACT BREAKER POINT)



Polish the contact points with a point file if they are burned, oxidized or out of alignment.

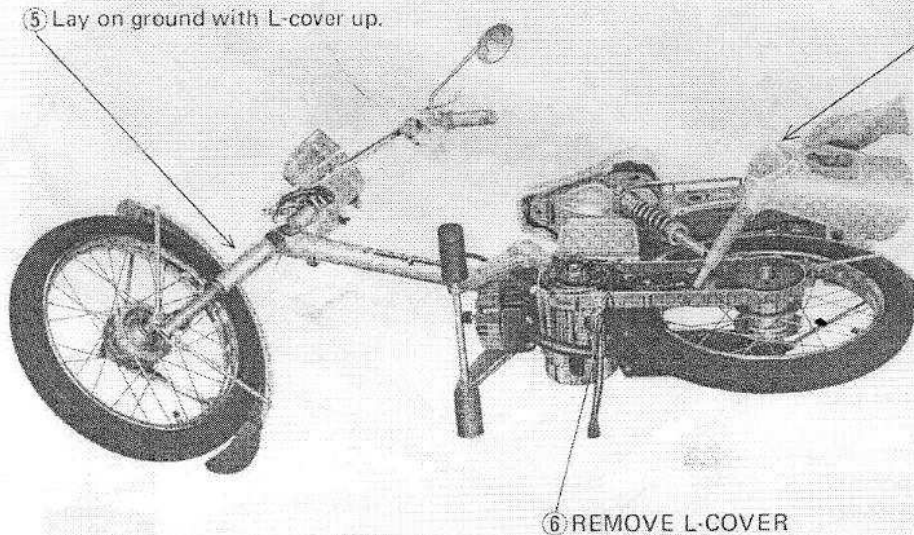
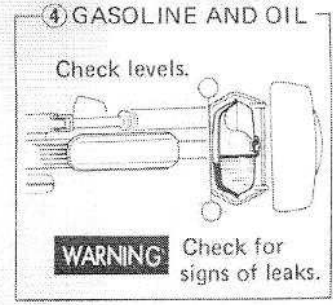
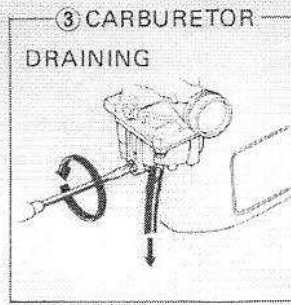
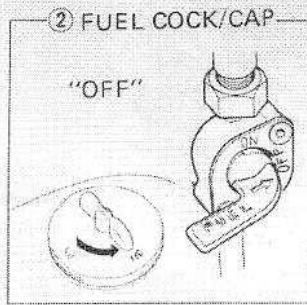
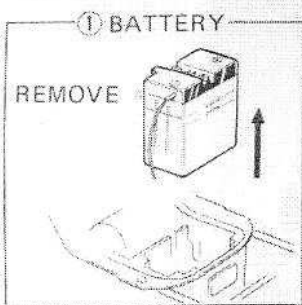


Engine L. COVER/STARTER

WARNING

Prior to disassembling, fully release the starter spring by pulling in the rear brake lever.

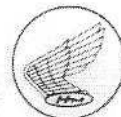
(L. COVER DISASSEMBLY WITHOUT OIL RENEWED)



NOTE

ASSEMBLY:
Pour 0.75 liters (0.79 qt.) of oil in case before installing L-cover.

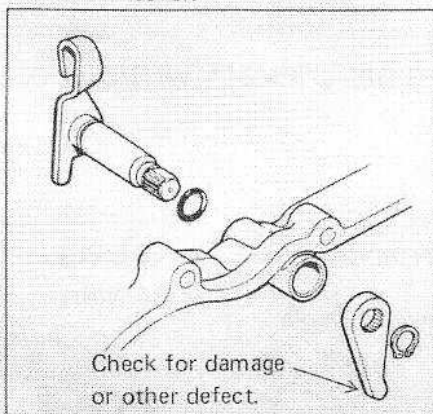
■ PAGE 13 - 2 FOR OIL REPLACEMENT.



(L. COVER DISASSEMBLY WHEN OIL RENEWED)

STARTER LEVER

NOTE Keep the lever turned all the way in the arrow direction when installing the L-cover.



NOTE

Install the L-cover while hand rotating the flywheel in arrow direction.

NOTE

During reassembly, use caution to keep parts assembled in place.

WARNING

Avoid getting oil on the brake linings.

OIL FILLER
After assembling, adjust the oil level to lower brim of the filler opening.

For L-cover installation and oil refilling, see page 13-1
But, for periodical change as prescribed in maintenance schedule, follow the procedure as below:

1. Stand the motorcycle upright
2. Drain the case oil
3. Pour oil and adjust level up to lower brim of oil filler hole

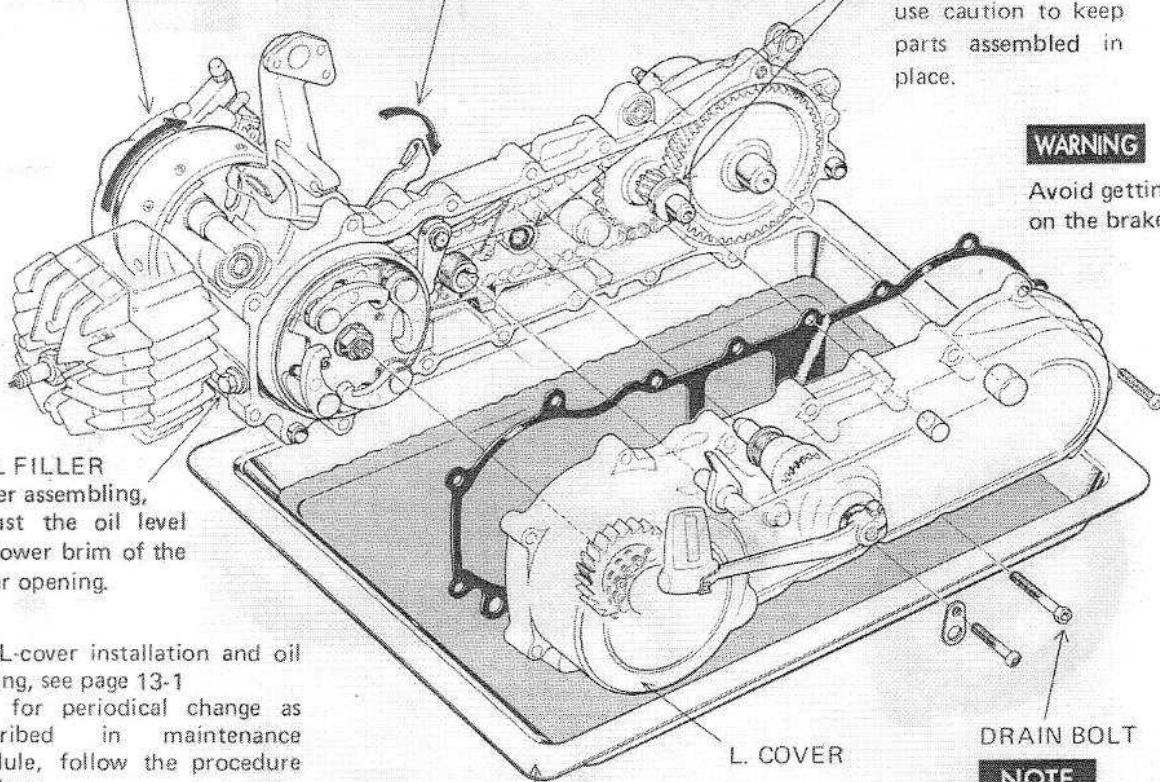
NOTE

Place an oil pan under the L-case and power train.

DRAIN BOLT

NOTE

Only about 0.6ℓ (0.66 US qt) of oil is drained out from the drain bolt hole.





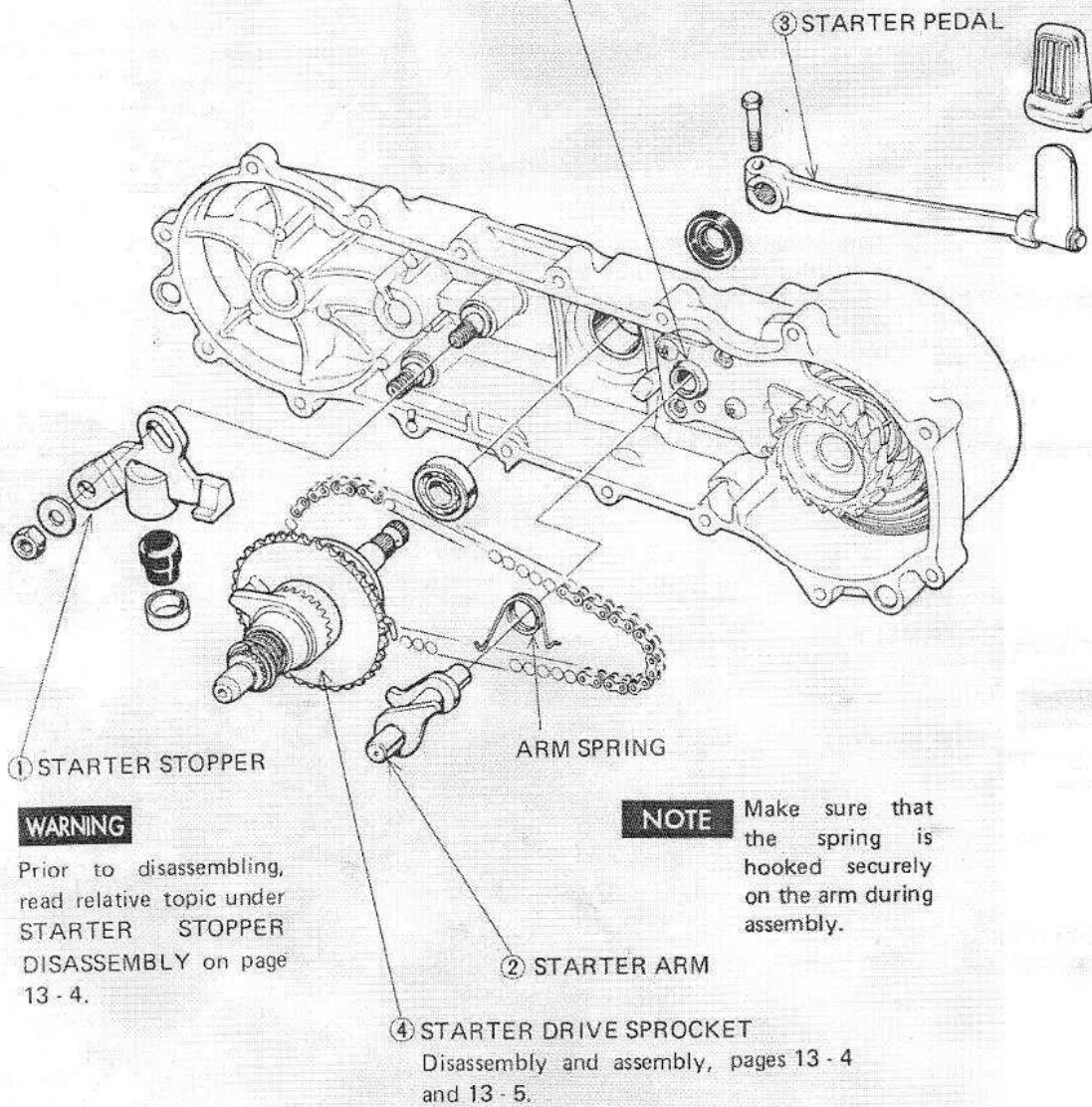
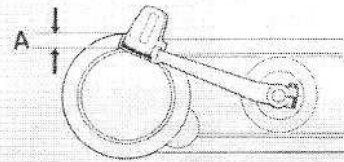
(STARTER DISASSEMBLY/ASSEMBLY)

Use special tool "STAND" as described on page 13 - 4.

SUSTAINING PLATE
(STARTER SPRING)

WARNING DANGER!!
NEVER DISASSEMBLE.
REPLACE TOGETHER WITH L-
COVER AS AN ASSEMBLY.

At assembly, install starter pedal so
the tip is within "A".



WARNING
Prior to disassembling,
read relative topic under
STARTER STOPPER
DISASSEMBLY on page
13 - 4.

NOTE Make sure that
the spring is
hooked securely
on the arm during
assembly.

(STARTER DISASSEMBLY/ASSEMBLY)

— STARTER STOPPER DISASSEMBLY —

- ③ STARTER STOPPER
Remove the stopper with the starter pedal held.

NOTE

After assembly, check for proper operation.

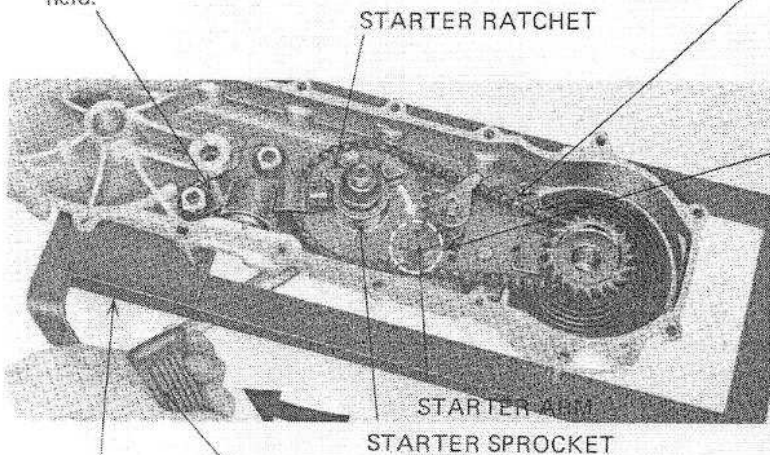
- ② Make sure that starter sprocket is locked by starter arm securely.

WARNING

Do not permit your hands to touch the chain and the starter arm.

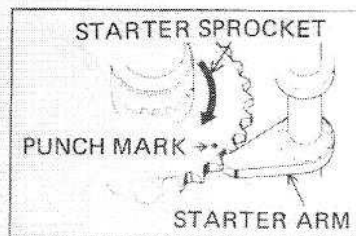
NOTE

When installing the L cover to the L case, wind up the starter spring until the punch mark on the starter sprocket aligns with the tip of the starter arm. Lightly tap the L cover while rotating the flywheel, and never tap the L case.



L-COVER DISASSEMBLING
BASE
(No. 07965-1470001)

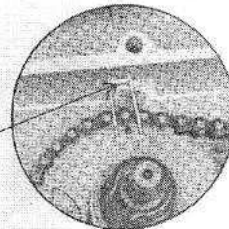
- ① Temporarily install the starter pedal in the proper position and rotate until there is a clearance between the starter stopper and the sprocket dog.



— STARTER DRIVE SPROCKET DISASSEMBLY —

NOTE

Install the drive sprocket with the marks aligned.

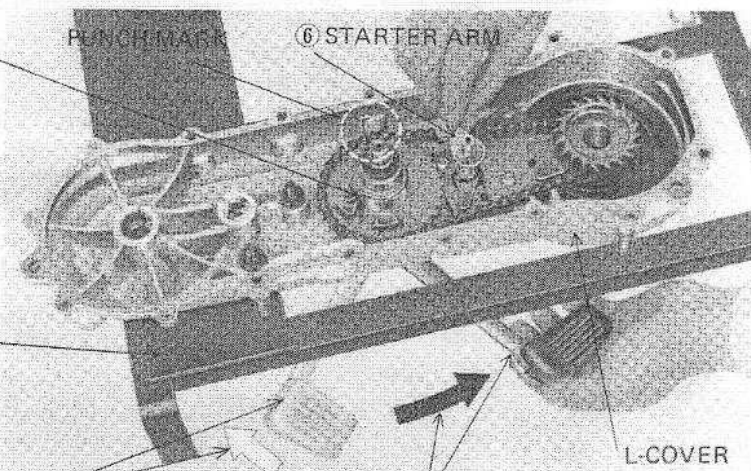


- ⑦ SPROCKET ASSEMBLY

CAUTION

At assembly, avoid damaging oil seal.

L-COVER BASE
(No. 07965-1470001)

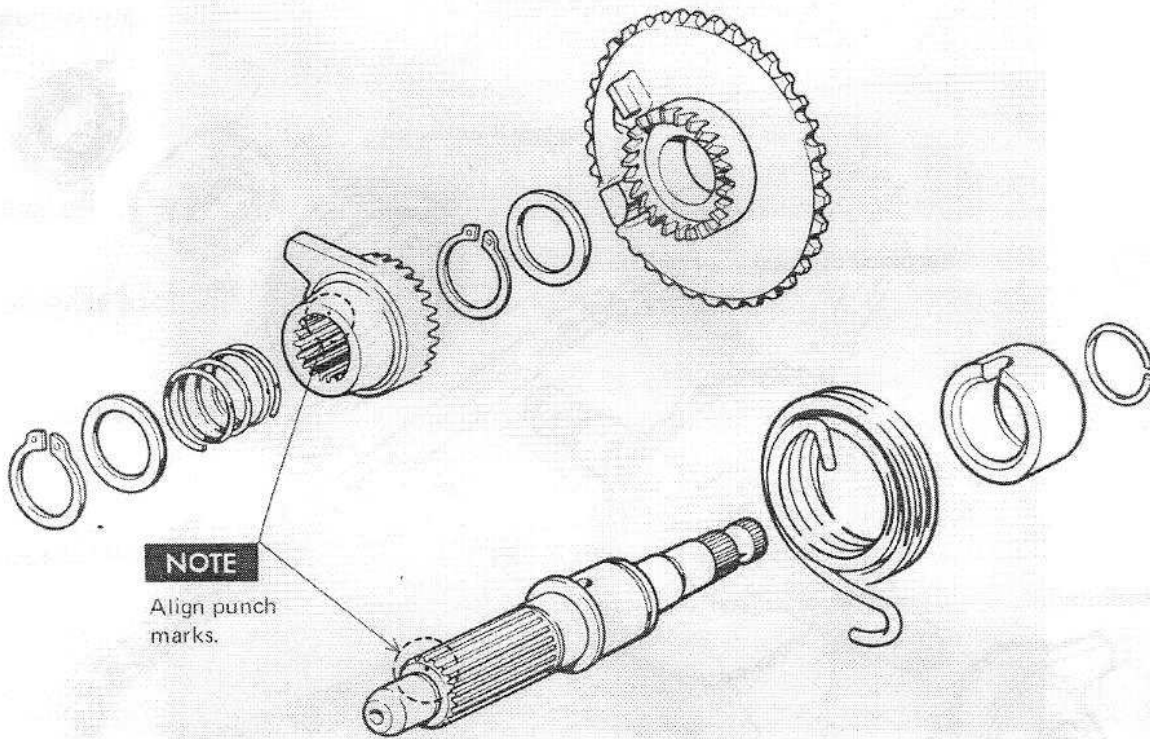


- ④ Release the stopper arm by rotating in arrow direction.

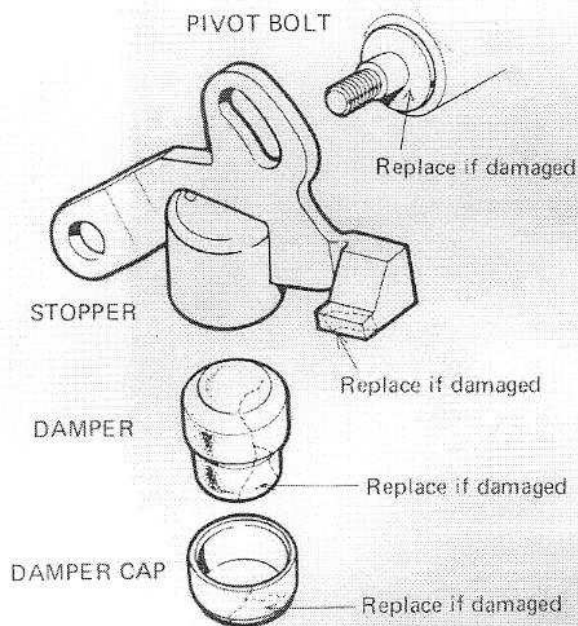
- ⑤ The starter spring is released by returning the pedal gradually in the arrow direction.



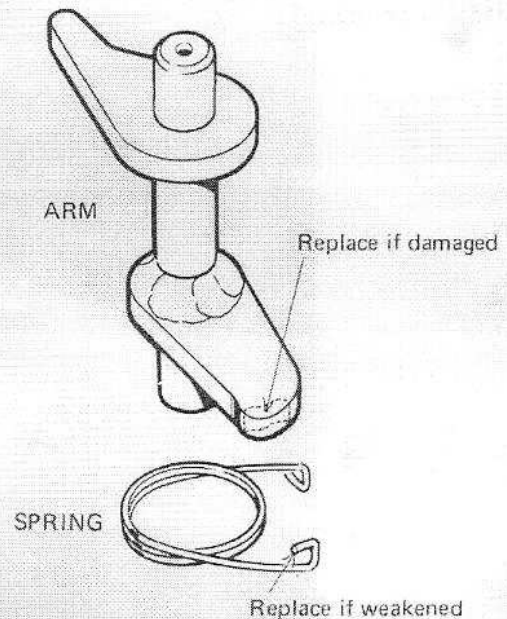
(STARTER DRIVE SPROCKET ASSEMBLY)



(STARTER STOPPER INSPECTION)

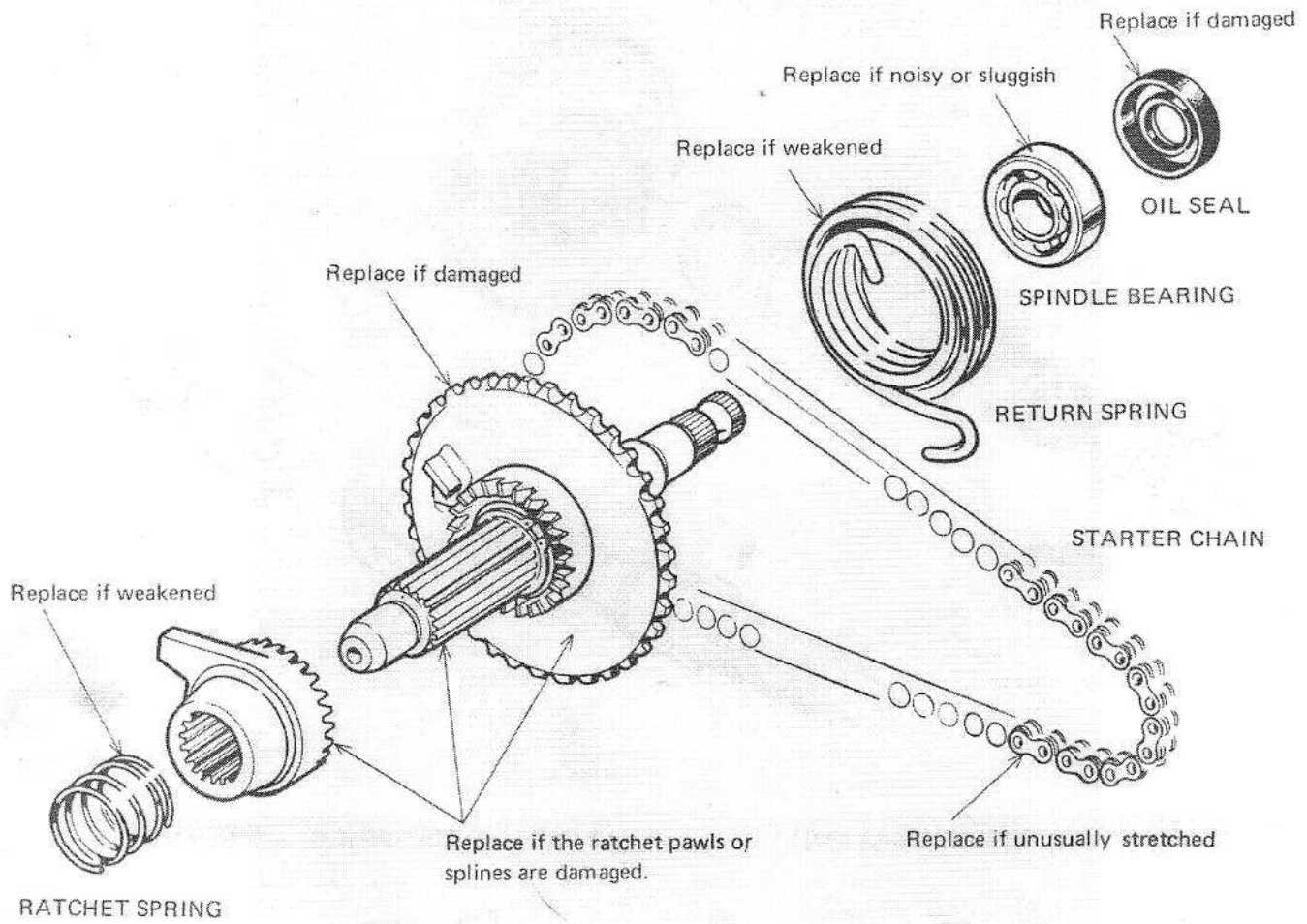


(STARTER ARM/SPRING INSPECTION)



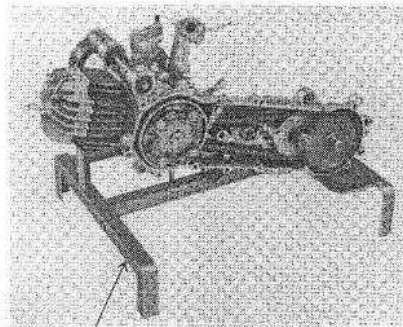
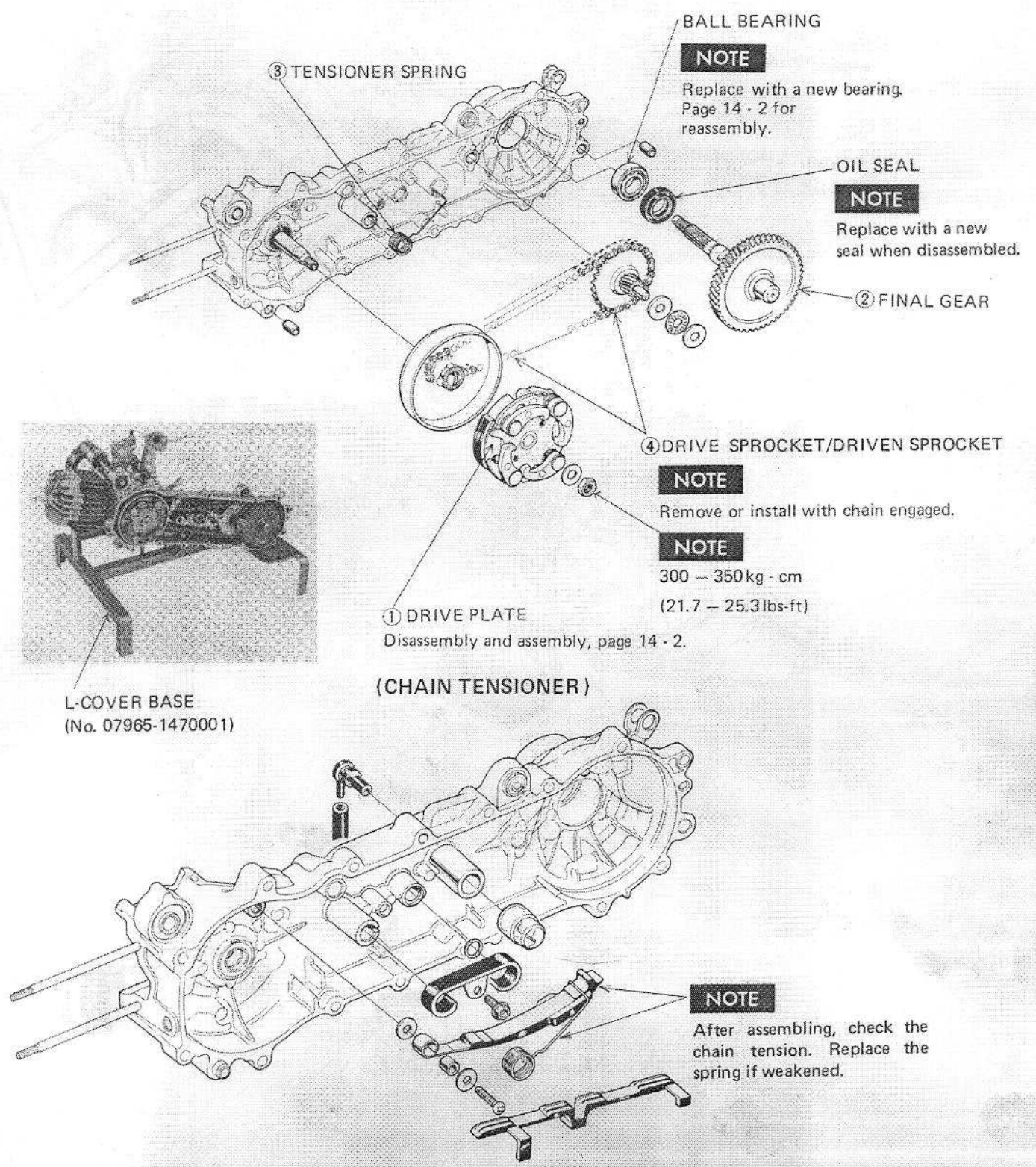


(DRIVE SPROCKET)





CLUTCH/FINAL DRIVE GEAR

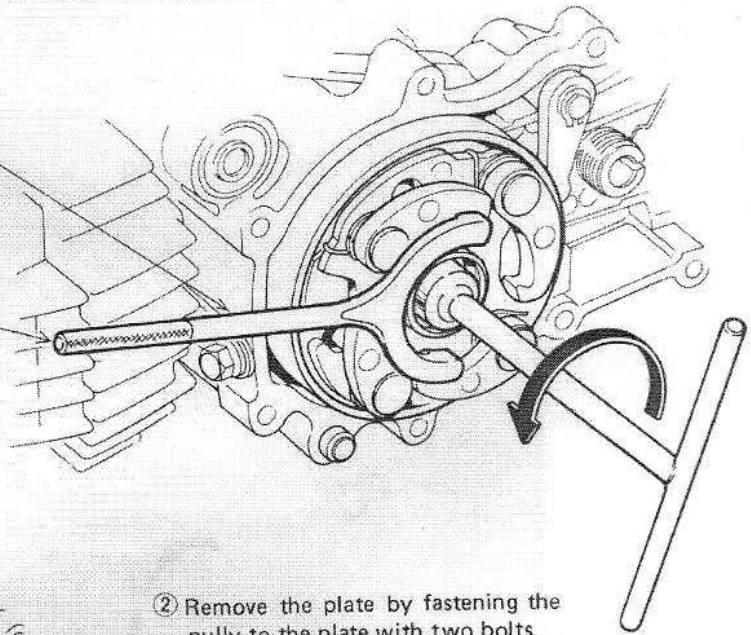


L-COVER BASE
(No. 07965-1470001)

(DRIVE PLATE DISASSEMBLY/ASSEMBLY)

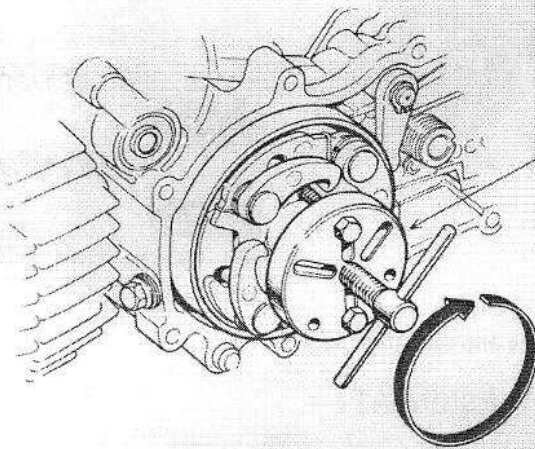
- ① Remove the nut while the tool is engaged with the ratchet pawls.

FLYWHEEL HOLDER
(No. 07925-0010001)



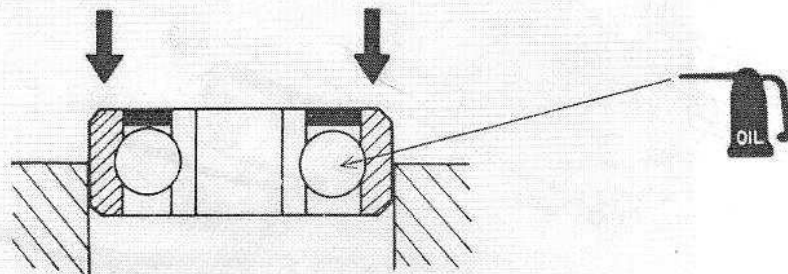
- ② Remove the plate by fastening the pulley to the plate with two bolts.

CLUTCH PULLER
(No. 07935-8050000)



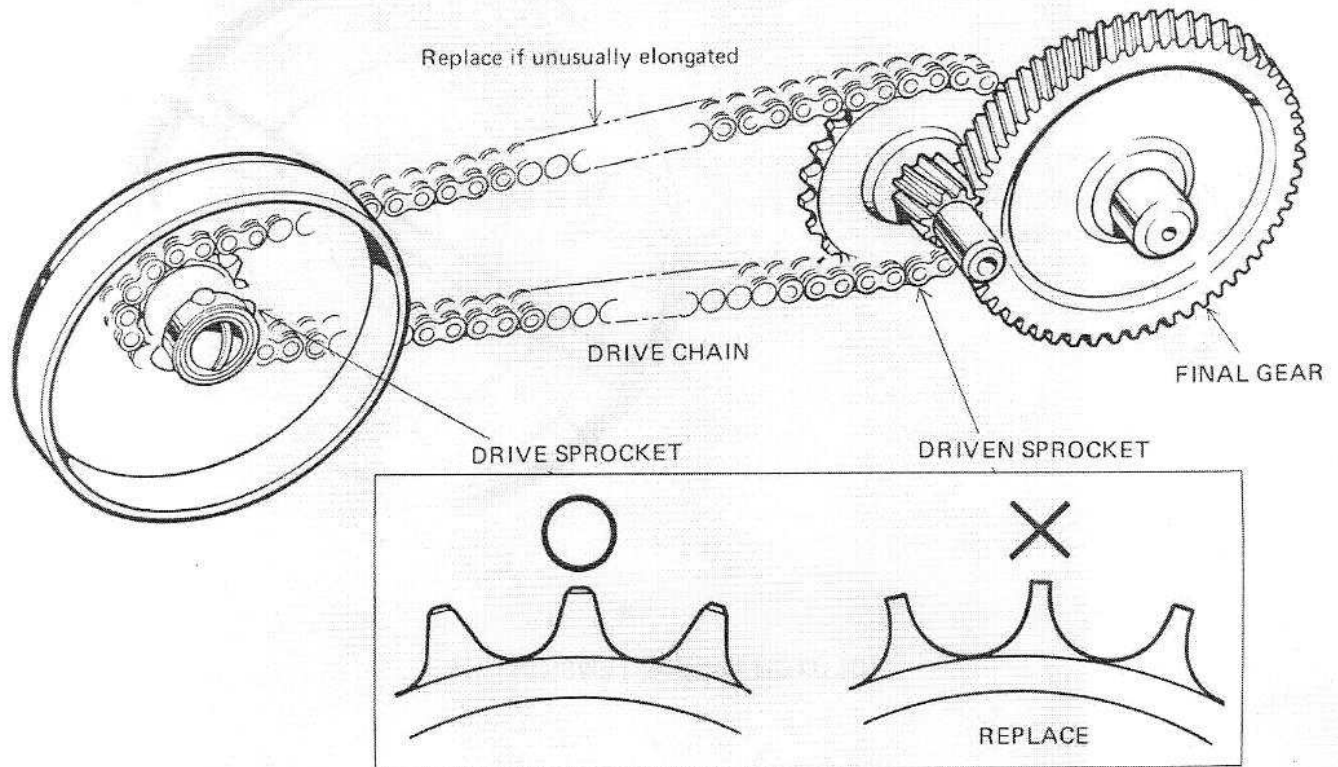
(BALL BEARING ASSEMBLY)

To install, drive outer race squarely to outer race.

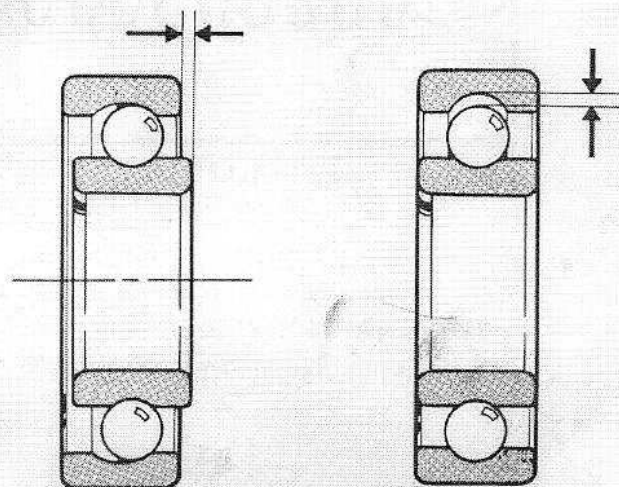




(INSPECTING DRIVE AND DRIVEN SPROCKETS FOR WEAR)



(BALL BEARING LOOSENESS)



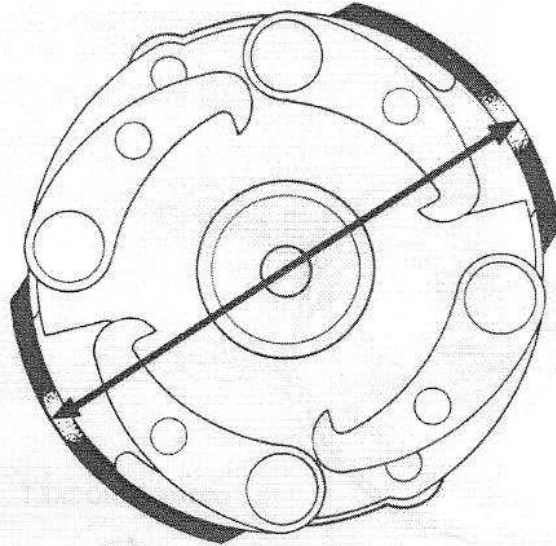
EXCESSIVE LOOSENESS (Replace)

EXCESSIVE LOOSENESS (Replace)

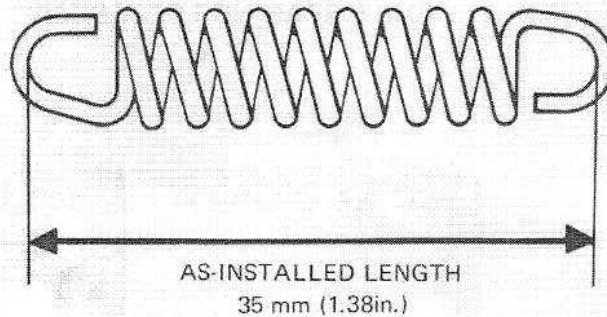


(CLUTCH SHOE WEAR)

103.8 – 103.9 mm (4.0826 – 4.0905 in.)
Service Limit: 103.6 mm (4.0787 in.)



(CLUTCH SPRING TENSION)



15 kg/35 mm (33.1 lbs/1.38 in.)
Service Limit: 13.5 kg/35 mm (29.8 lbs/1.38 in.)



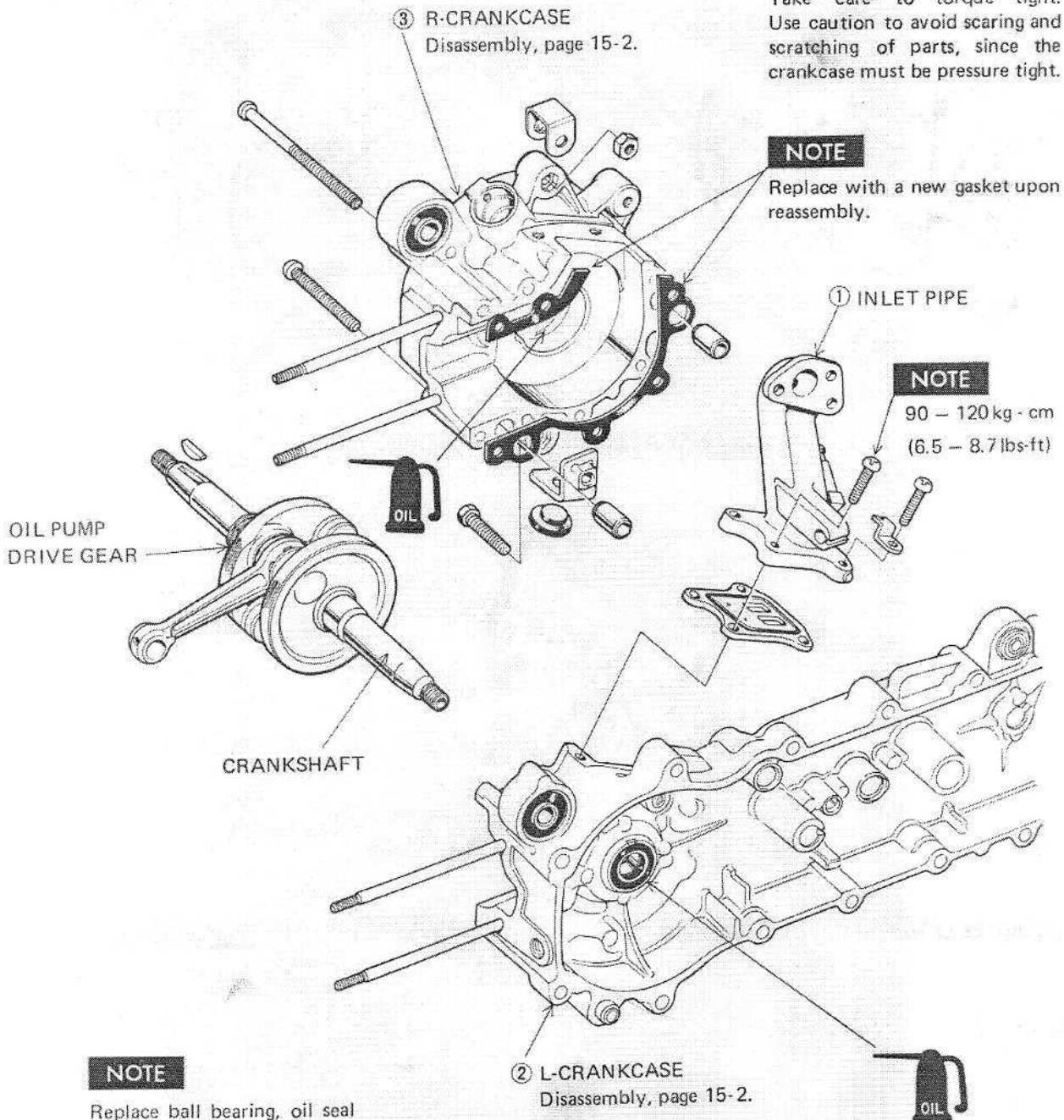
CRANKCASE/CRANKSHAFT

CAUTION

Take care to torque tight. Use caution to avoid scaring and scratching of parts, since the crankcase must be pressure tight.

NOTE

Replace with a new gasket upon reassembly.



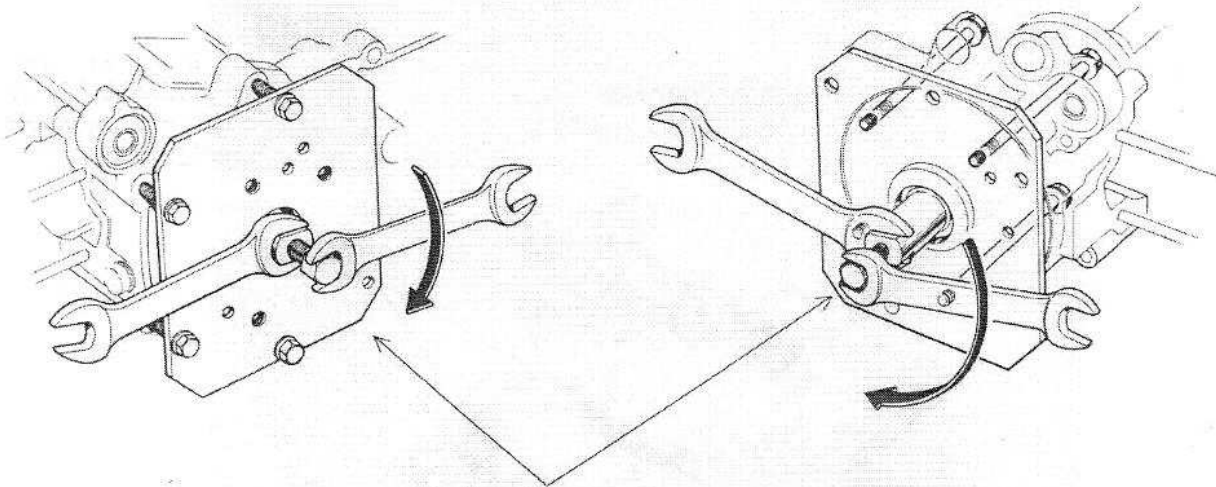
NOTE

Replace ball bearing, oil seal and pump drive gear when overhauling the engine.

■ PAGE 15-2 FOR CRANKCASE AND OIL SEAL ASSEMBLY.

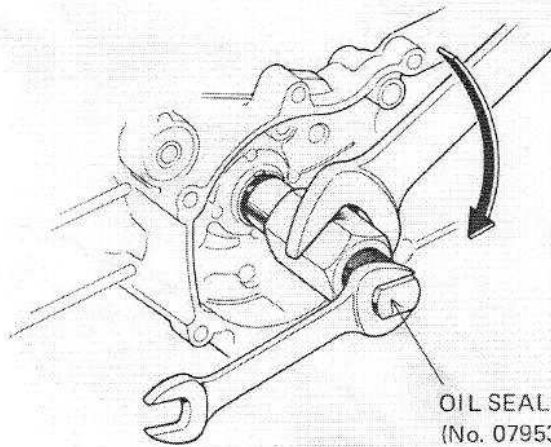
(L-CRANKCASE DISASSEMBLY)

(R-CRANKCASE DISASSEMBLY)



CASE PULLER
(No. 07933-1470000)

(CRANKCASE/OIL SEAL ASSEMBLY)

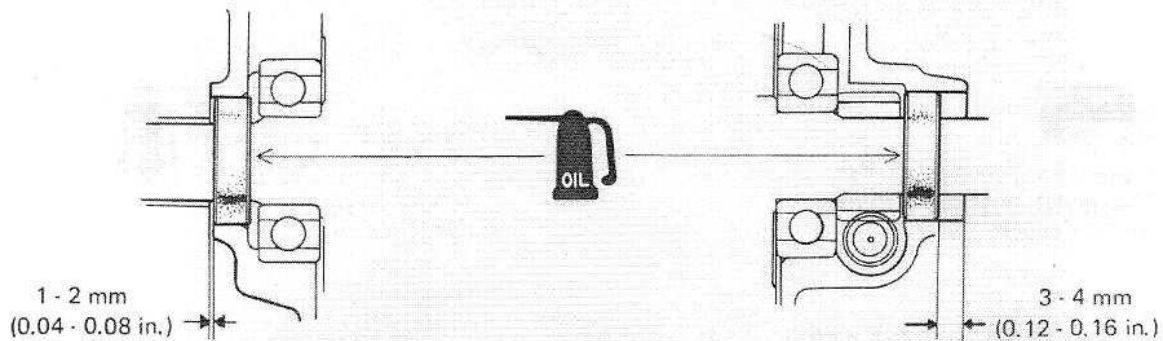


Use collar when assembling
the crankcase.

OIL SEAL ASSEMBLING TOOL
(No. 07953-1470000)

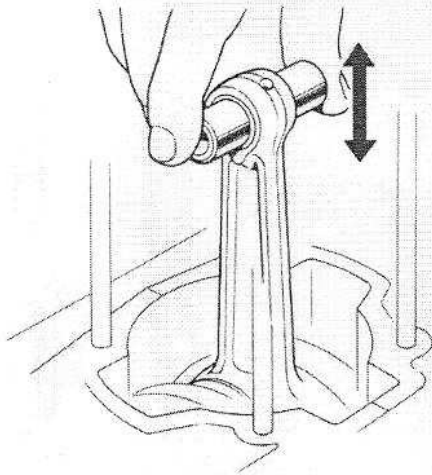
— L-OIL SEAL INSTALLATION DIMENSION —

— R-OIL SEAL INSTALLATION DIMENSION —



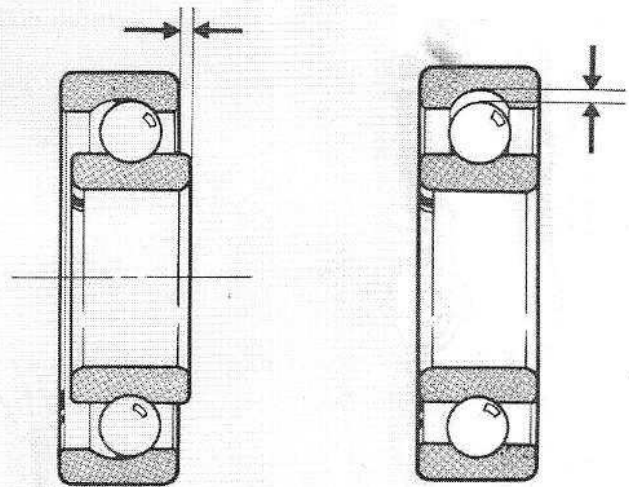


(CHECK CONNECTING ROD SMALL
END BEARING LOOSENESS)



Over 1.5 mm (0.06 in.) (Replace)

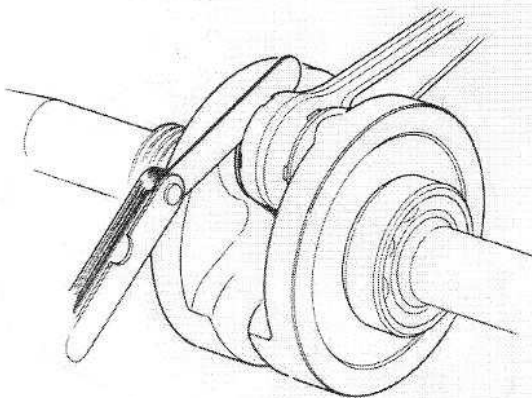
(CHECK BEARING LOOSENESS)



UNUSUAL LOOSENESS
(Replace)

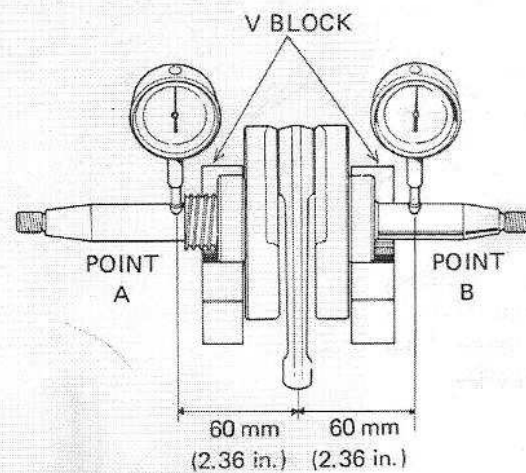
UNUSUAL LOOSENESS
(Replace)

(MEASURE CONNECTING ROD BIG
END BEARING SIDE CLEARANCE)



0.15 – 0.41 mm (0.0059 – 0.0161 in.)
Service Limit: 0.6 mm (0.0236 in.)

(MEASURE CRANKSHAFT RUNOUT)

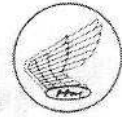


POINT A & B

0.05 mm (0.0020 in.) MAX.
Service Limit: 0.15 mm (0.0059 in.)

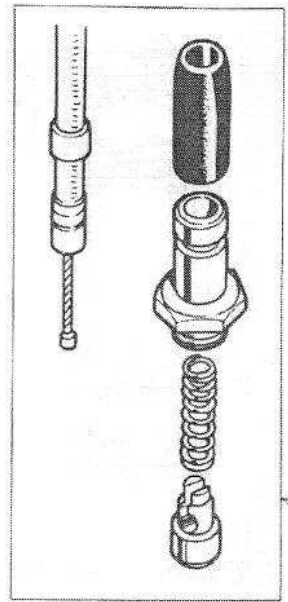
16 Engine CARBURETOR

HONDA
NC50



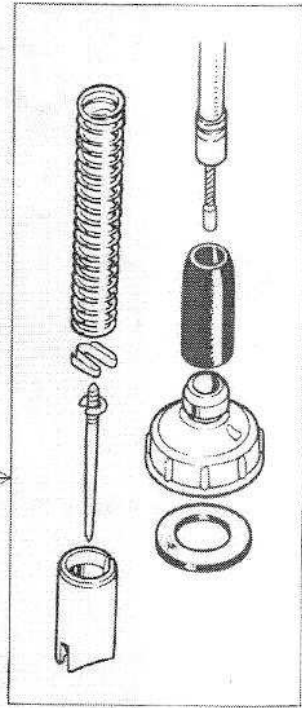
NOTE

Turn off fuel valve
before draining.



④ CHOKE CABLE

③ THROTTLE CABLE



② FUEL TUBE

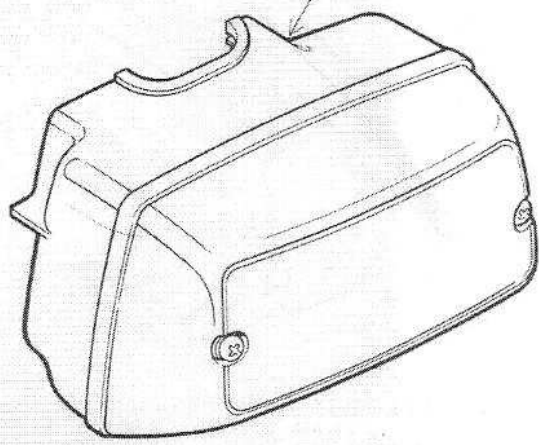
⑥ CARBURETOR
Disassembly and
reassembly, page
16-2.

⑤ AIR CLEANER

NOTE

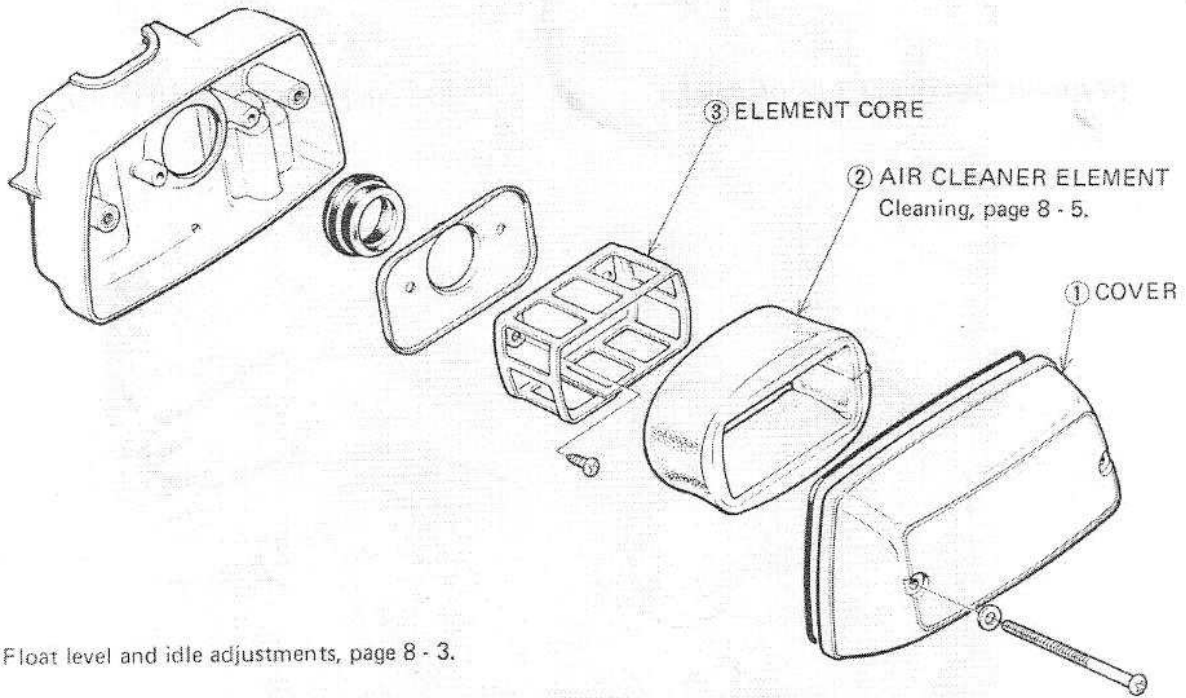
When installing
carburetor, be sure
to fasten the
ground cable.

① ROTATE SCREW TO DRAIN.



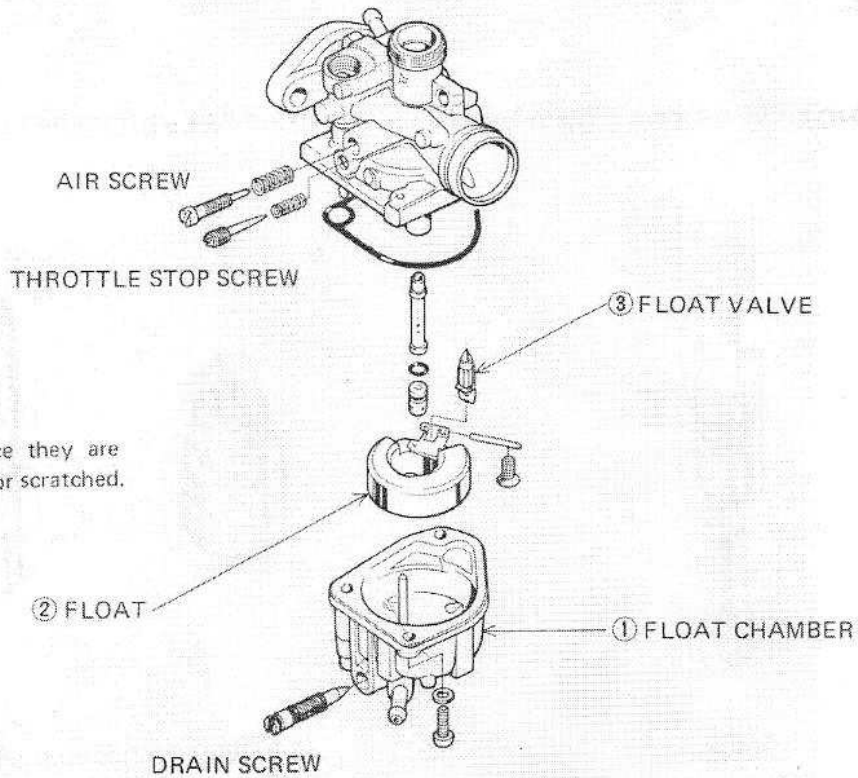


(AIR CLEANER)



Float level and idle adjustments, page 8 - 3.

(CARBURETOR DISASSEMBLY/ASSEMBLY)

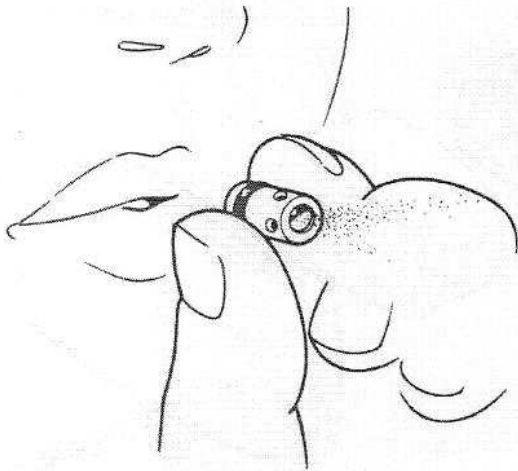


CAUTION

Use care since they are easily scored or scratched.

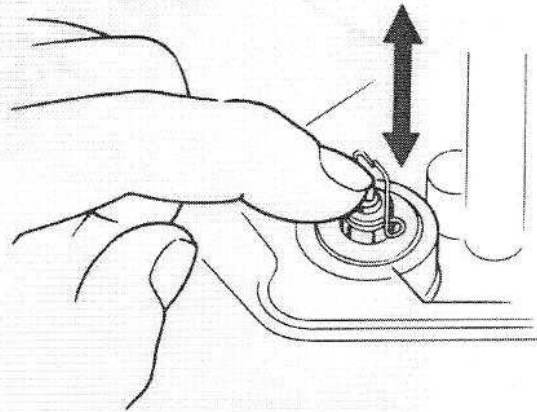


(MAIN JET/SLOW JET CLOGGING)



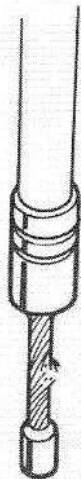
Check that orifices are open and not clogged by blowing.

(FLOAT VALVE OPERATION)



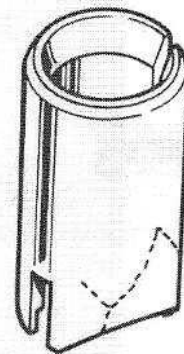
Replace if not returned smoothly.

(THROTTLE/CHOKE WIRE FRAY OR DAMAGE)



(Replace)

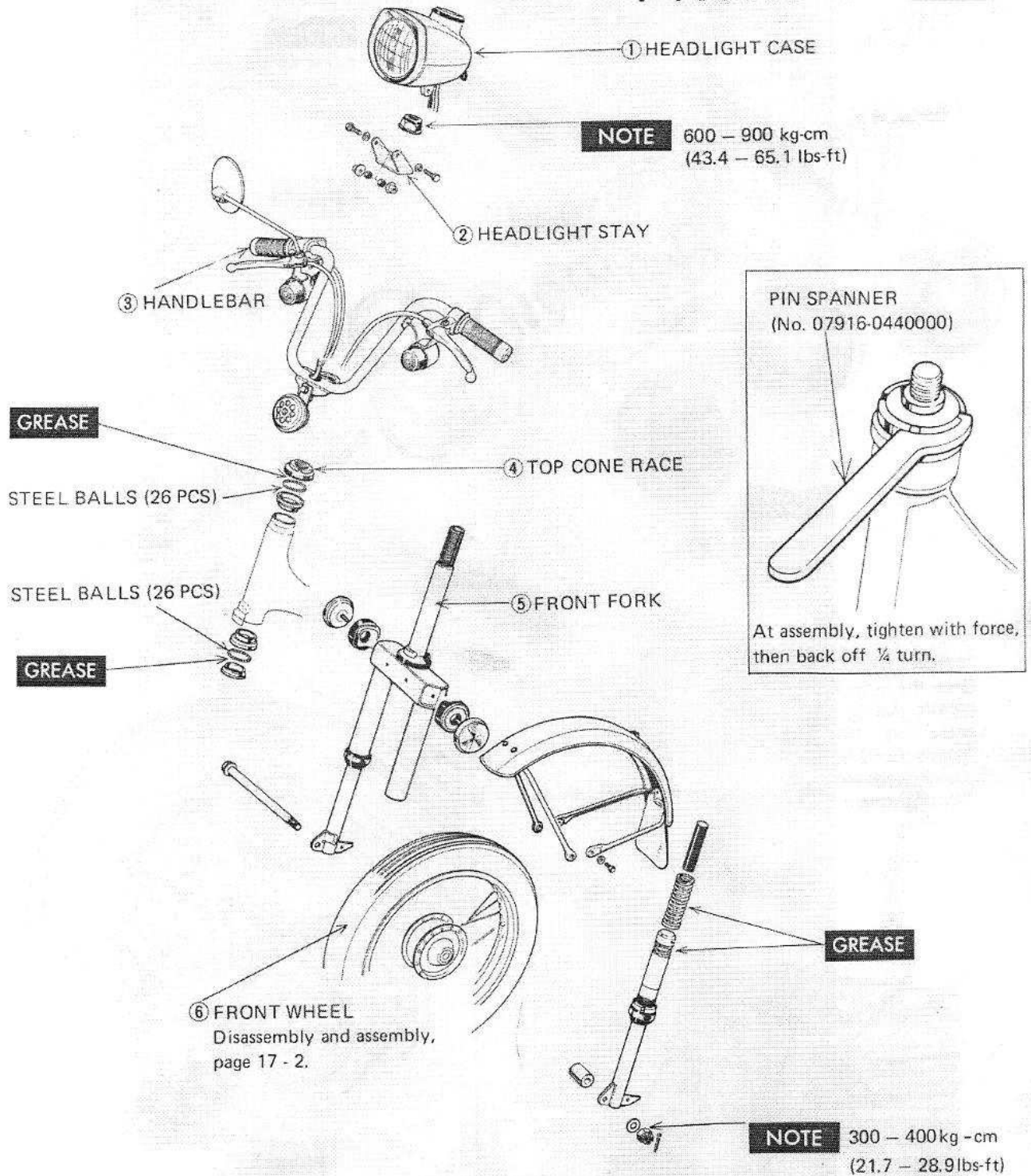
(CHOKE VALVE/THROTTLE VALVE DAMAGE)



SCRATCH OR SCORE (Replace)

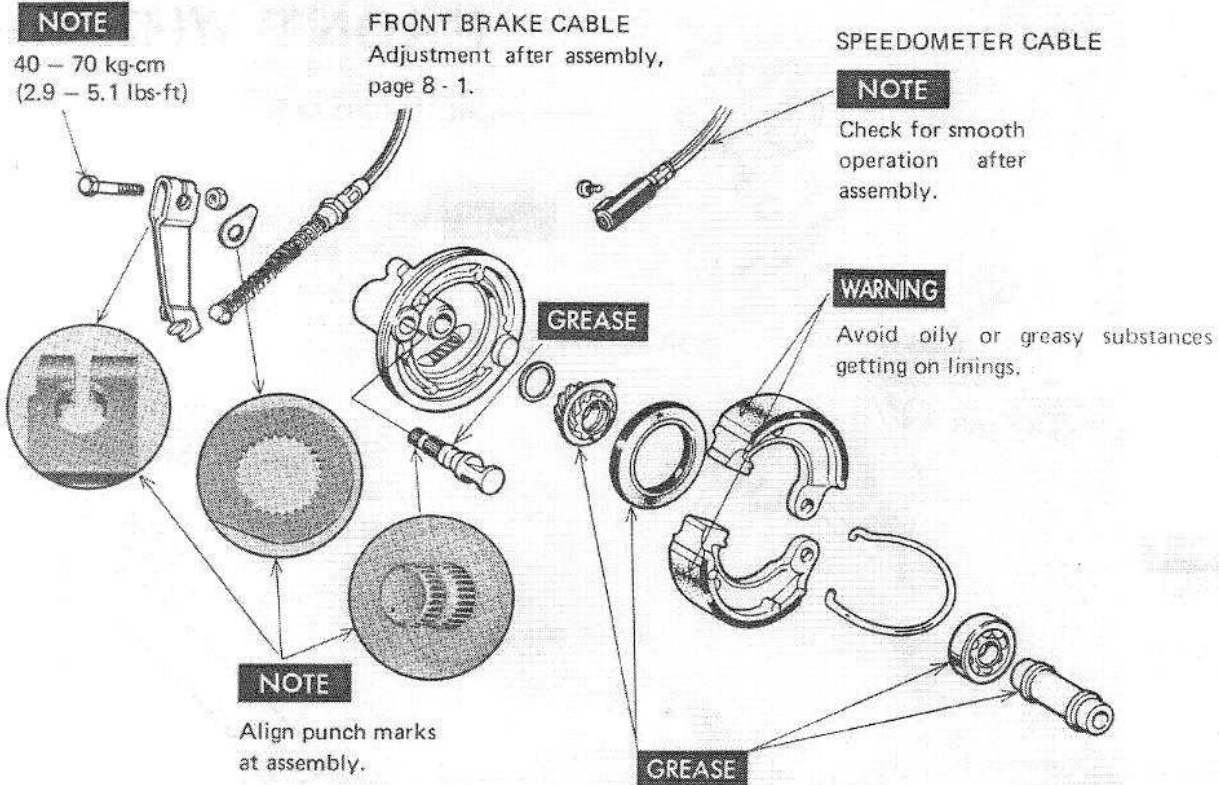


17
Frame
**HANDLEBAR/
FRONT FORK/
FRONT WHEEL**



■ BALL RACE DISASSEMBLY AND ASSEMBLY, PAGE 17 - 3.

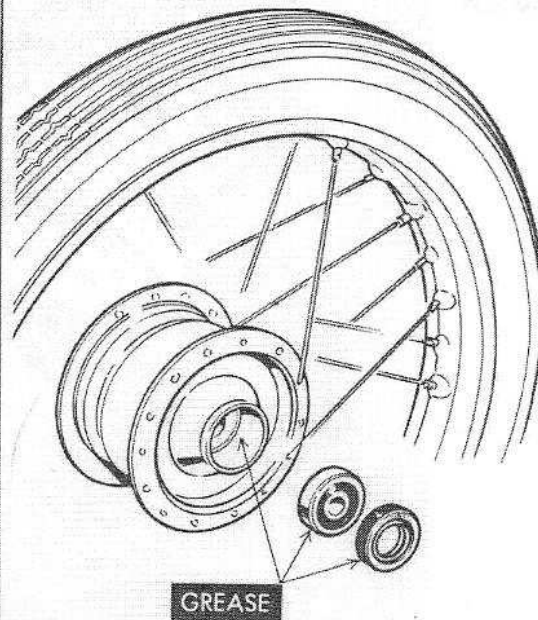
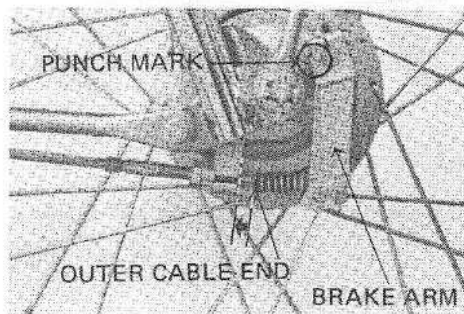
(FRONT WHEEL DISASSEMBLY/ASSEMBLY)



(FRONT BRAKE ARM READJUSTMENT)

Once the outer cable end reaches the point shown in the picture due to shoe wearing after adjusting the front brake lever free play, reset the brake arm position (punch mark) by turning the brake arm by one serration counterclockwise.

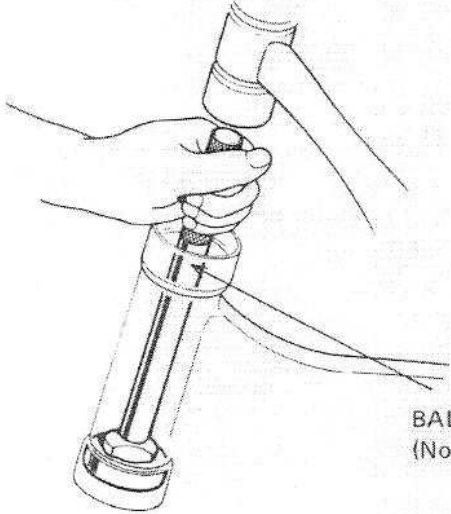
This adjustment is only enough with one time resetting.



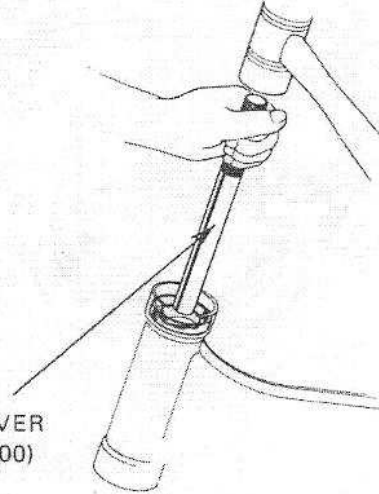


(BALL RACE DISASSEMBLY/ASSEMBLY)

- DISASSEMBLY -

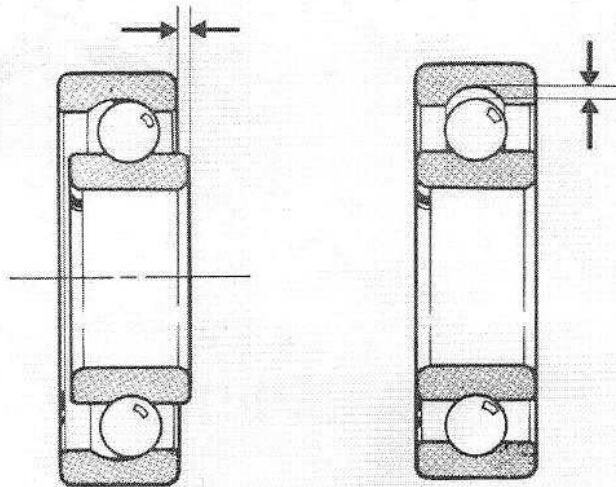


- ASSEMBLY -



BALL RACE DRIVER
(No. 07953-3330000)

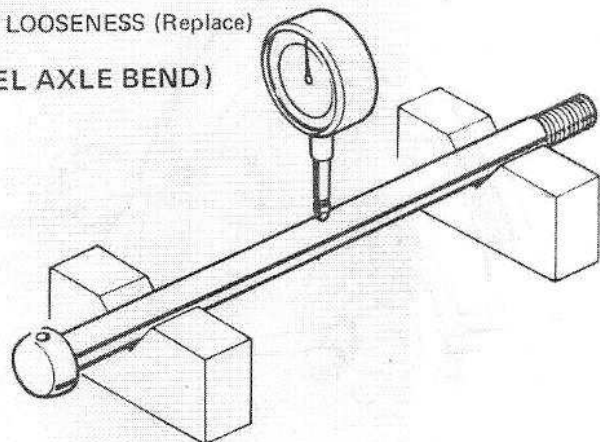
(CHECKING BALL BEARING LOOSENESS)



EXCESSIVE LOOSENESS (Replace)

EXCESSIVE LOOSENESS (Replace)

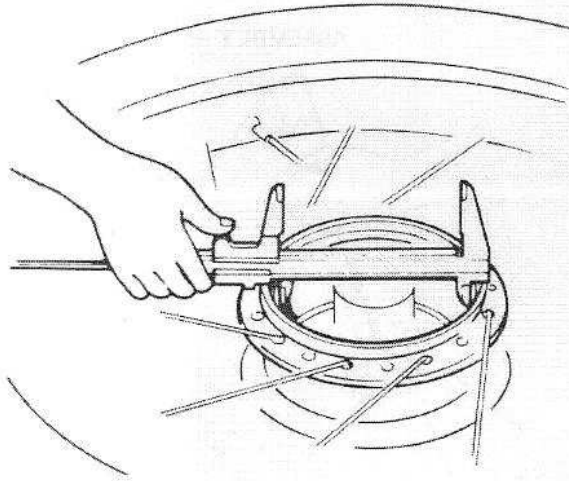
(CHECKING FRONT WHEEL AXLE BEND)



0.05mm (0.0020 in.) MAX.
Service Limit: 0.1mm (0.0039 in.)



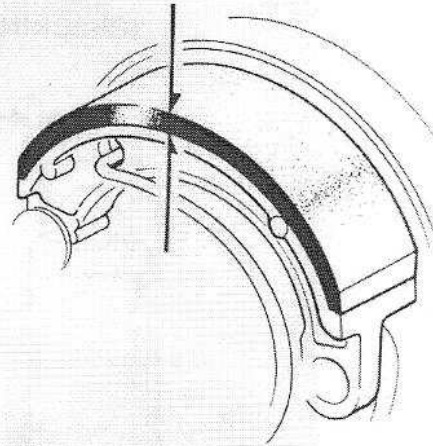
(WHEEL HUB I.D.)



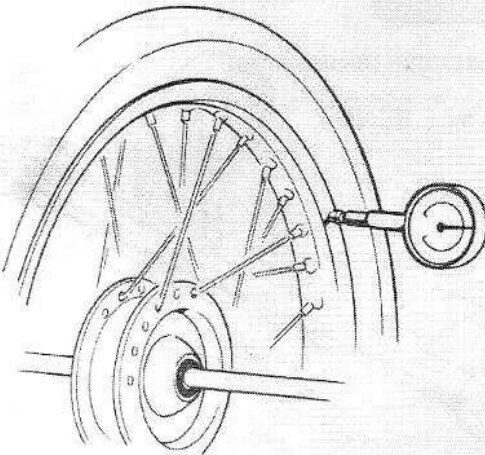
80.0 – 80.2 mm (3.150–3.158 in.)
Service Limit: 81.0 mm (3.189 in.)

(BRAKE LINING THICKNESS)

3.5 mm (0.138 in.)
Service Limit: 2.0 mm (0.079 in.)



(FRONT WHEEL WOBBLE)



0.05 mm (0.0020 in.) MAX.
Service Limit: 2.0 mm (0.079 in.)

NOTE

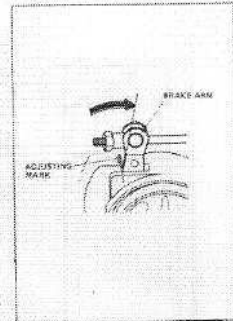
Check for damage or nails embedded in the tire treads.

– SPOKE LOOSENESS –

Retighten or repair as necessary.



(fig. D)



Point of resetting

NOTE

Replace new when disassembled.

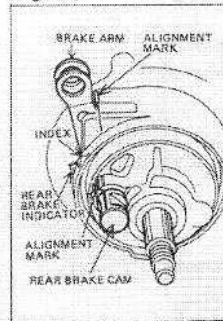
NOTE

400 – 500 kg · cm
(28.9 – 36.2 lbs-ft)

REAR BRAKE ARM RESETTINGS

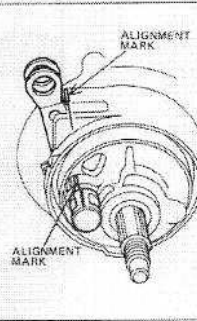
Before arrow on rear brake indicator aligns to index on L crankcase, brake arm resetting is necessary two times according to shoe wearing.

(fig. A)



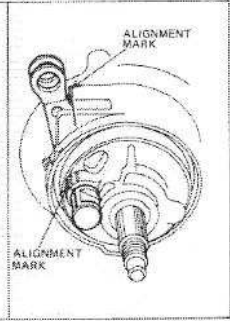
First resetting

(fig. B)



Second resetting

(fig. C)



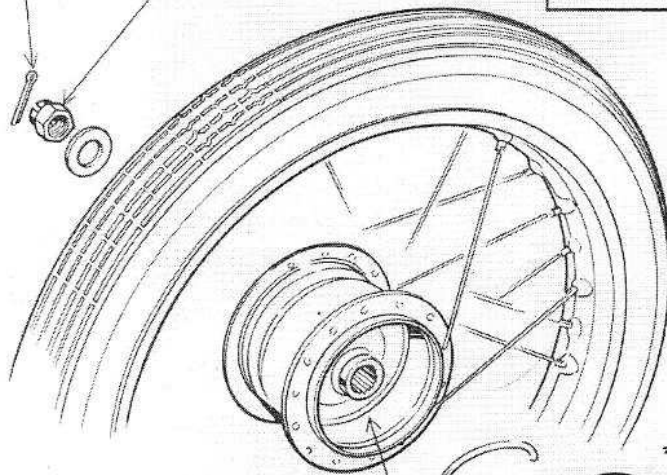
Installation with new shoe

If the brake arm reaches the point shown in (fig. D), when brake lever is adjusted with adjusting nut, reset arm in accordance with (fig. A).

And under the same condition, if arm is in the same again, reset like (fig. B).

When installing new shoe, follow with (fig. C).

REAR WHEEL



REAR BRAKE INDICATOR

REAR BRAKE ARM

REAR BRAKE CAM

WARNING

Avoid oily or greasy substances getting on linings.

GREASE

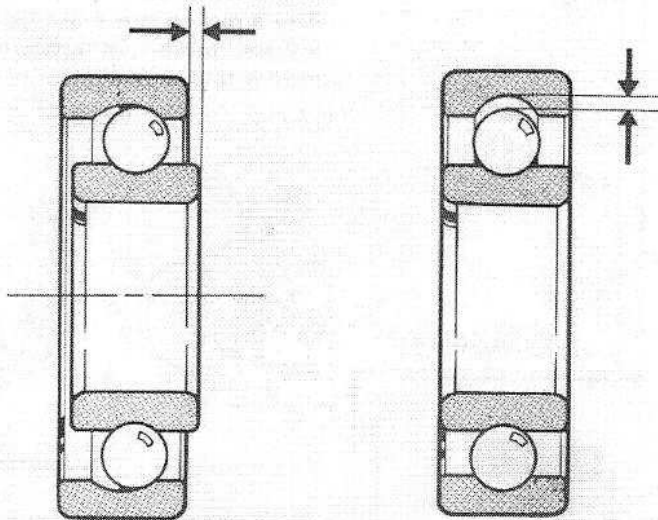
NOTE

40 – 70 kg · cm
(2.9 – 5.1 lbs-ft)

L. CRANKCASE

■ PAGES 8 - 1 AND 8 - 2 FOR REAR BRAKE CABLE ADJUSTMENT AFTER ASSEMBLING.

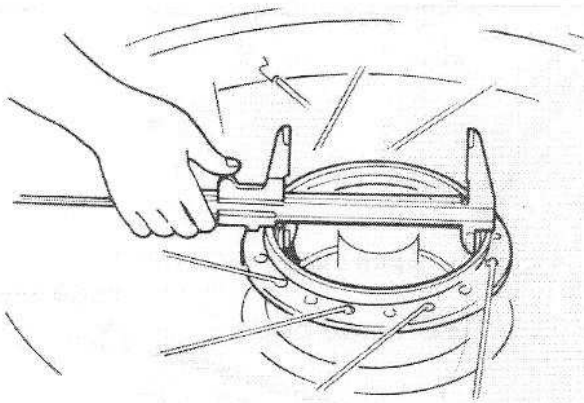
(CHECKING BALL BEARING LOOSENESS)



UNUSUAL LOOSENESS (Replace)

UNUSUAL LOOSENESS (Replace)

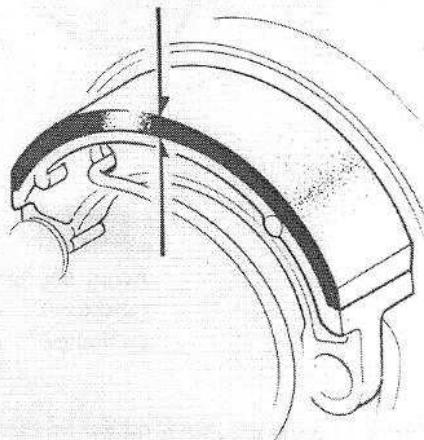
(MEASURE WHEEL HUB I.D.)



80.0 – 80.2mm (3.150 – 3.158 in.)
 Service Limit: 81.0mm (3.189 in.)

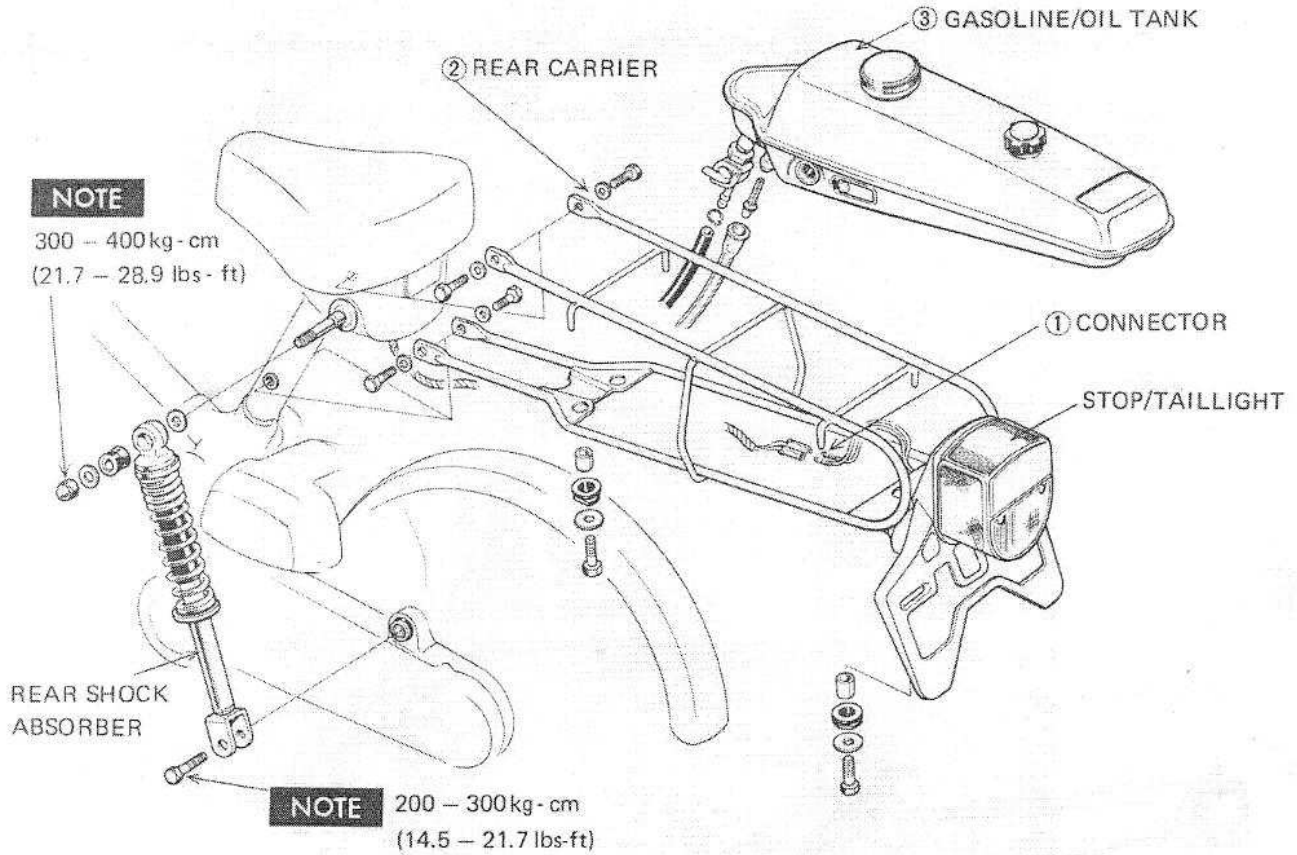
(MEASURE BRAKE LINING THICKNESS)

3.5mm (0.138 in.)
 Service Limit: 2.0mm (0.079 in.)

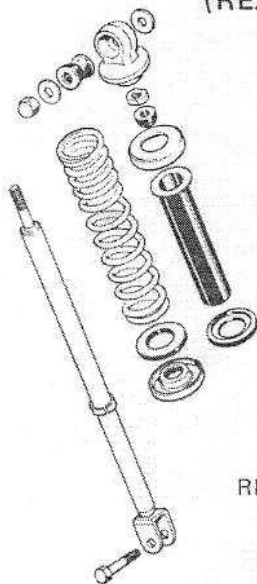




REAR SHOCK ABSORBER/ FUELTANK



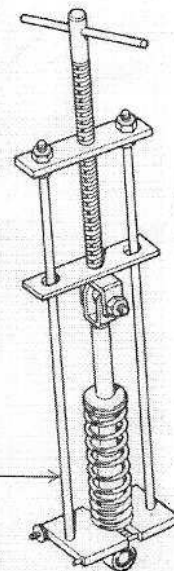
(REAR SHOCK ABSORBER DISASSEMBLY)



NOTE
After assembling, check
operation.

S. TOOL

REAR SHOCK ABSORBER COMPRESSOR
(No. 07959-3290000)



ELECTRICAL

(ELECTRICAL ACCESSORIES AND THEIR LOCATIONS)

1. IGNITION SYSTEM

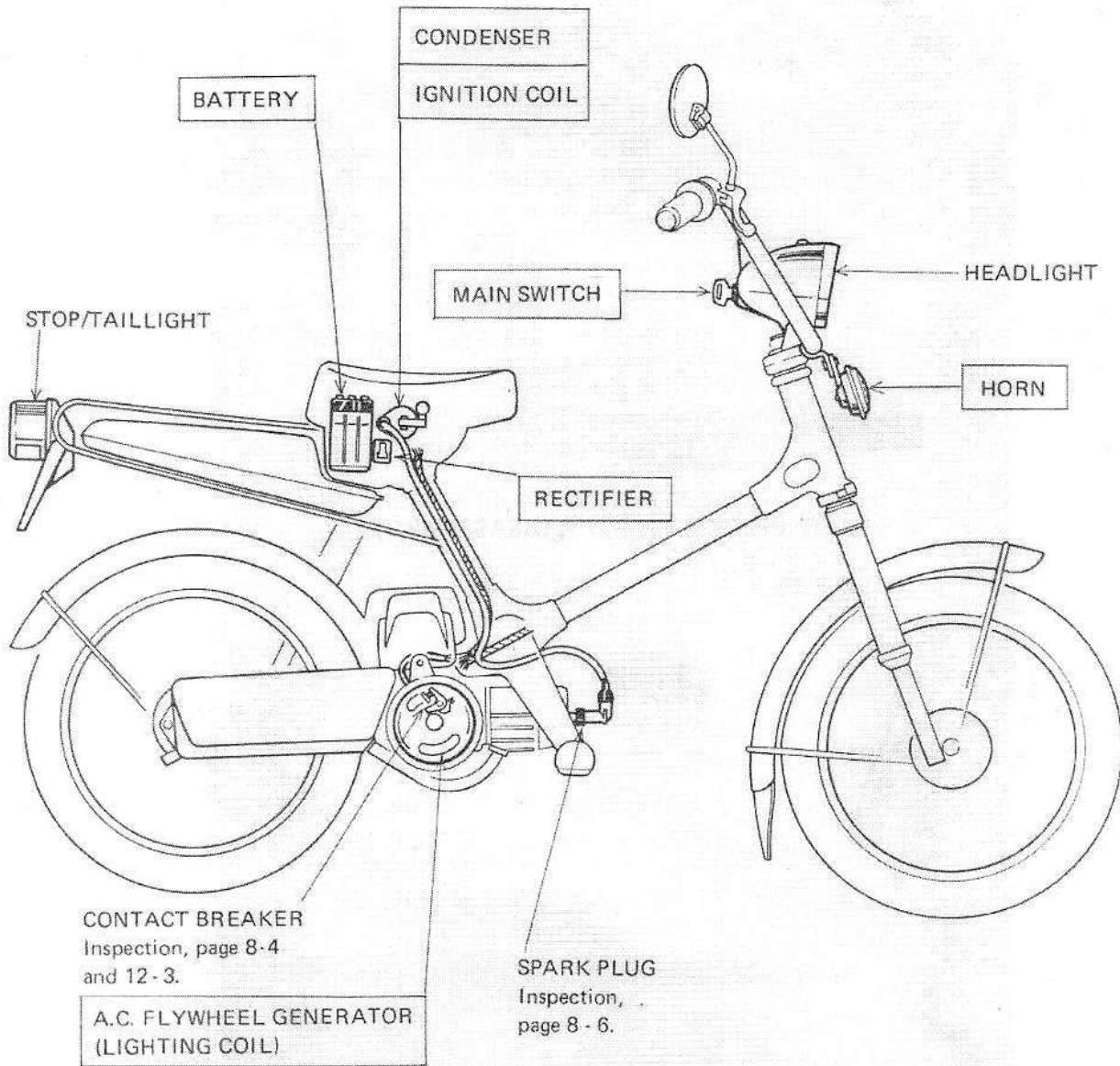
- CONTACT BREAKER
- IGNITION COIL
- CONDENSER
- SPARK PULG

2. BATTERY CHARGING SYSTEM

- A.C. FLYWHEEL GENERATOR
- RECTIFIER
- BATTERY

3. LIGHTING SYSTEM AND OTHERS

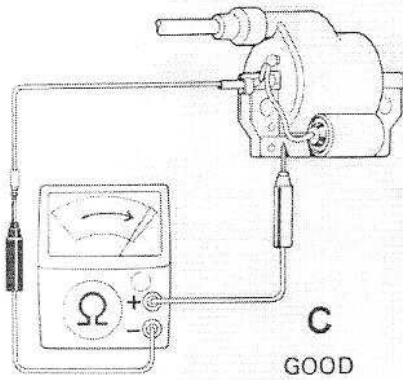
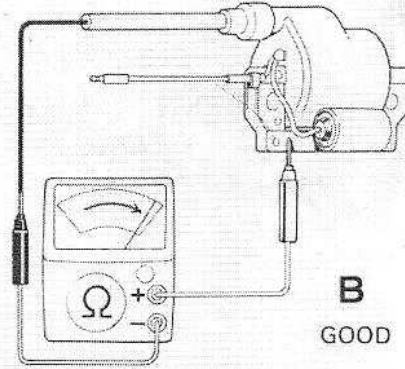
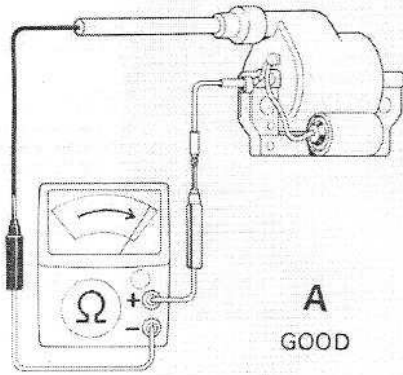
- HEADLIGHT
- STOP/TAILLIGHT
- HORN



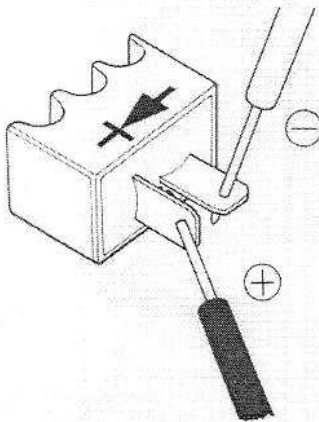


(IGNITION COIL)

Check for continuity as shown.

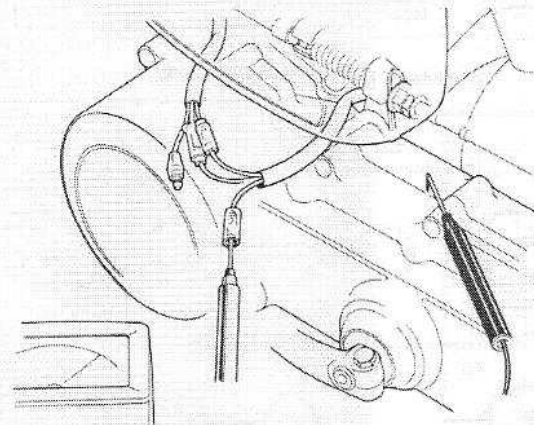


(RECTIFIER)



Normal if continuous only in arrow direction.
Replace if continuity exists in reverse direction.

(LIGHTING COIL)

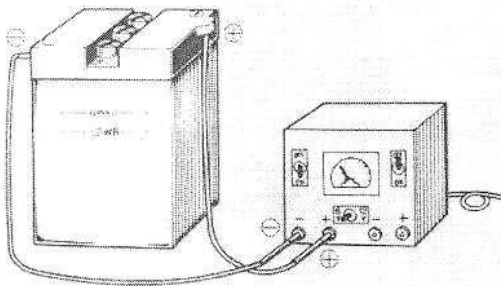


Check for continuity by attaching one test probe to yellow connector and the other to ground. Normal if there is continuity.



(BATTERY CHARGING)

Battery inspection, page 8 - 6.


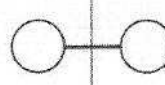
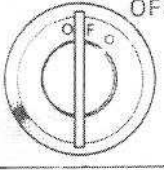



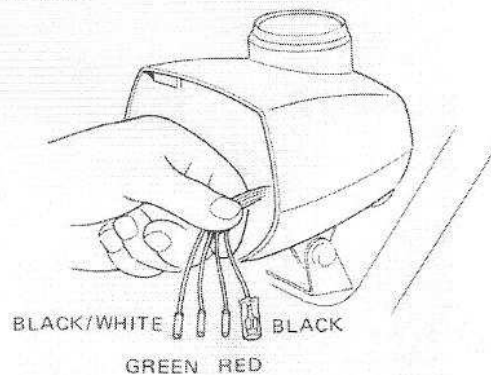
WARNING

Keep away sparks and open flames from battery while charging.

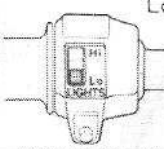

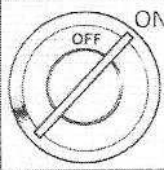
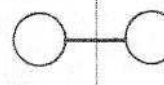
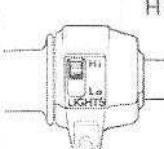
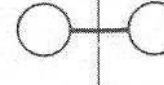
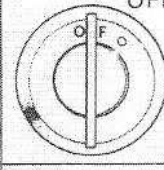
Connecting method	Connect charger positive (+) terminal to battery positive terminal. Connect charger negative (-) terminal to battery negative terminal.
Charging current	0.2A
Inspection	Continue charging until specific gravity of battery electrolyte is 1.26 - 1.28 (at 20°C). Gases are formed on plate surfaces vigorously at end of charge.
Charging time	12 - 13 hours for batteries with specific gravity below 1.22 (at 20°C)

(MAIN SWITCH)

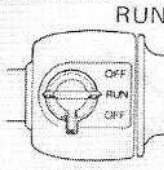
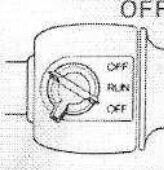
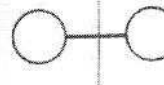
	IG	E	P	BAT
ON				
OFF				
Lead color	BLACK/WHITE	GREEN	BLACK	RED



(DIMMER/HORN SWITCH)

	Lo	Hi	GEN		HO	E
Lo						
Hi						
Lead color	WHITE	BLUE	YELLOW	Lead color	LIGHT GREEN	GREEN

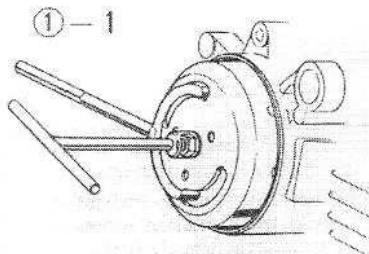
(ENGINE STOP SWITCH)

	IG	E
RUN		
OFF		
Lead color	BLACK/WHITE	GREEN

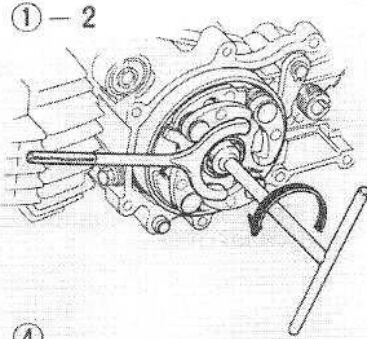
All wires are routed in headlight case. Check these switches when main switch is to be inspected.



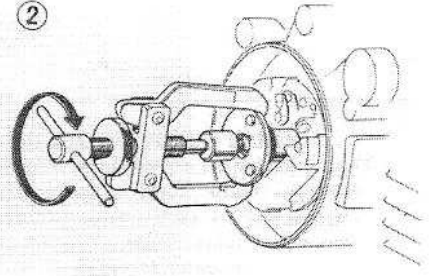
SPECIAL TOOLS



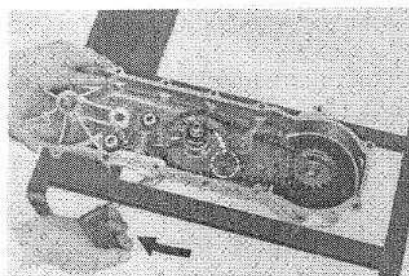
①-1



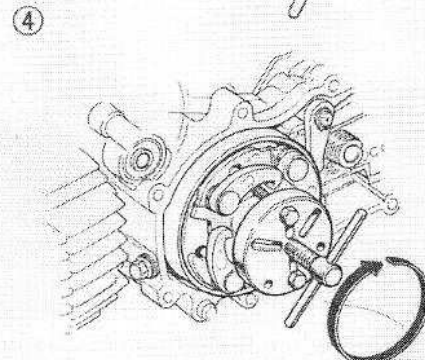
①-2



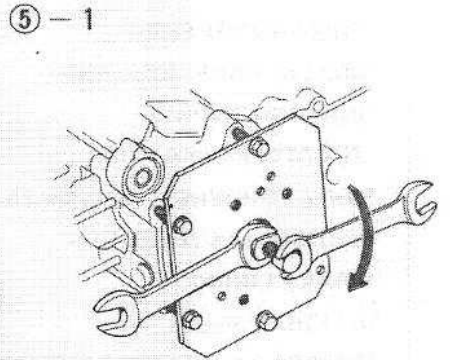
②



③



④



⑤-1

⑤-2

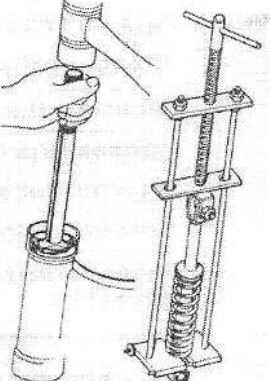
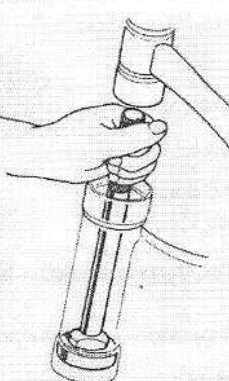
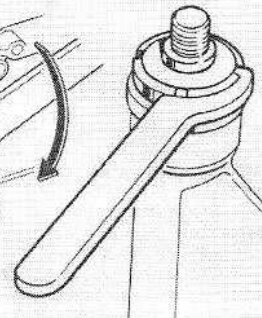
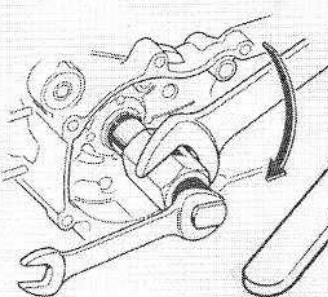
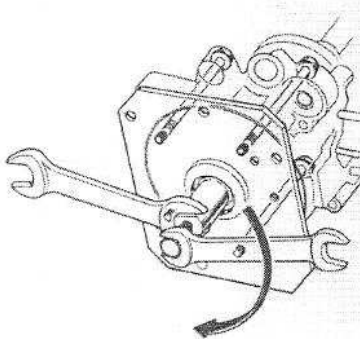
⑥

⑦

⑧-1

⑧-2

⑨



Ref. No.	Tool parts No.	Description	Common to:	Remarks	Page
①	07925-0010001	Flywheel holder	-	Holding flywheel and drive plate	12-2 14-2
②	07931-1470100	ACG. puller attachment	NC50	Protecting shaft end when disassembling rotor flange	12-2
③	07965-1470001	L-crankcase base	NC50	Disassembling L-crankcase cover	13-4
④	07935-8050000	Clutch puller	G series	Pulling out drive plate	14-2
⑤	07933-1470000	Case puller	NC50	Disassembling crankcase	15-2
⑥	07953-1470000	Oil seal assembling tool	NC50	Installing crankcase and crankshaft oil seal	15-2
⑦	07916-0440000	Pin spanner	-	Removing and tightening top cone race	17-1
⑧	07953-3330000	Ball race driver	CB350F	Removing and installing ball race	17-3
⑨	07959-3290000	Rear shock absorber compressor	XL250	Disassembling and reassembling rear shock absorber	19-1

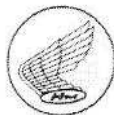


MAINTENANCE SCHEDULE

MAINTENANCE SCHEDULE This maintenance schedule is based upon average riding conditions. Machines subjected to severe use, or ridden in unusually dusty areas, require more frequent servicing.	PRE-RIDING INSPECTION	INITIAL SAFETY INSPECTION	REGULAR SERVICE PERIOD Perform at every indicated month or mileage interval, whichever occurs first.	
		1 month 200 miles	12 months 1,000 miles	24 months 2,000 miles
TIRES AND PRESSURE	I			
*CONTACT BREAKER POINTS		I	I	
*IGNITION TIMING		I	I	
THROTTLE OPERATION	I			
*WHEEL TRUENESS AND SPOKES		I	I	
*NUTS, BOLTS (TIGHTEN)		I	I	
*BRAKE LININGS			I	
BATTERY FLUID LEVEL	I			
*BATTERY FLUID SPECIFIC GRAVITY			I	
*SPARK PLUG			R	
*AIR FILTER ELEMENT		(EVERY 6 MONTHS) C		
*CARBURETOR			I	
*FUEL FILTER SCREEN		C	C	
*SUSPENSION OPERATION			I	
*CLUTCH SHOES FOR WEAR				I
*TRANSMISSION OIL				R
*DECARBONIZE CYLINDER HEAD AND MUFFLER				C
BRAKE OPERATION AND FREE PLAY	I			
OIL AND FUEL LEVEL	I			
ALL LIGHTS	I			
TRANSMISSION CASE FOR LEAKS	I			

I-Inspect, clean, adjust or replace if necessary R-Replace C-Clean L-Lubricate

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



TORQUE SPECIFICATIONS

(ENGINE)

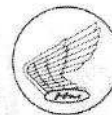
Ref. No.	Tightening point	Q'ty	Thread dia. mm	Torque		Page
				kg-cm	(lbs - ft)	
1	Cylinder head hold-down nuts	4	6	90-120	(6.5 - 8.7)	10-1
2	A.C. flywheel generator attaching nut	1	10	300-350	(21.7 - 25.3)	12-1
3	Clutch (drive plate) attaching nut	1	10	300-350	(21.7 - 25.3)	14-1
4	Inlet pipe attaching nuts	4	6	90-120	(6.5 - 8.7)	15-1

(FRAME)

Ref. No.	Tightening point	Q'ty	Thread dia. mm	Torque		Page
				kg-cm	(lbs - ft)	
1	Engine mounting bolt	1	10	300-400	(21.7 - 28.9)	9-1
2	Steering stem nut	1	-	600-900	(43.4 - 65.1)	17-1
3	Front wheel axle nut	1	10	300-400	(21.7 - 28.9)	17-1
4	Rear wheel axle nut	1	12	400-500	(28.9 - 36.2)	18-1
5	Front brake arm bolt	1	5	40-70	(2.9 - 5.1)	17-2
6	Rear brake arm bolt	1	5	40-70	(2.9 - 5.1)	18-1
7	Rear shock absorber	Upper nut	10	300-400	(21.7 - 28.9)	19-1
		Lower bolt	8	200-300	(14.5 - 21.7)	

Standard Torque Specifications

Type	Torque	
	kg-cm	(lbs - ft)
5mm bolts	40-70	(2.9 - 5.1)
6mm screws	90-110	(6.5 - 8.0)
6mm bolts	100-140	(7.2 - 10.1)
8mm bolts	200-250	(14.5 - 18.1)
10mm bolts	300-400	(21.7 - 28.9)


SERVICE DATA
(ENGINE)

Unit:mm (in.)

Item	Assembly Standard	Repair Limit	Page
Piston/piston ring clearance	0.025-0.055 (0.0010-0.0022)	0.1 (0.0039)	10 - 3
Piston skirt O.D. (4 mm from bottom)	39.955-39.975 (1.5731-1.5739)	39.85 (1.5689)	10 - 4
Cylinder I.D.	40.00-40.01 (1.5748-1.5752)	40.05 (1.5768)	10 - 4
Piston ring end gap	0.15-0.35 (0.0059-0.0138)	0.6 (0.0236)	10 - 5
Piston pin O.D.	9.994-10.000 (0.3935-0.3937)	9.97 (0.3925)	10 - 5
Piston pin hole I.D.	10.002-10.008 (0.3938-0.3940)	10.03 (0.3949)	10 - 5
Clutch shoe O.D.	103.8-103.9 (4.0826-4.0905)	103.6 (4.0787)	14 - 4
Clutch spring preload: Load kg/mm (lbs/in.)	15/35 (33.1/1.38)	13.5/35 (29.8/1.38)	14 - 4
Connecting rod big end bearing side clearance	0.15-0.41 (0.0059-0.0161)	0.6 (0.0236)	15 - 3
Crankshaft runout Left 60mm Right 60mm	0.05 max. (0.0020) 0.05 max. (0.0020)	0.15 (0.0059) 0.15 (0.0059)	15 - 3

(FRAME)

Unit:mm (in.)

Item	Assembly Standard	Repair Limit	Page
Front wheel axle bend	0.05 max. (0.0020)	0.1 (0.0039)	17 - 3
Front and rear wheel hub I.D.	80.0 - 80.2 (3.150-3.158)	81.0 (3.189)	17 - 4 18 - 2
Front and rear brake lining thicknesses	3.5 (0.138)	2.0 (0.079)	17 - 4 18 - 2
Front wheel runout	0.05 max. (0.0020)	0.2 (0.0079)	17 - 4



Handwritten mark

TROUBLE SHOOTING

Trouble	Probable Cause	Remedy
Engine does not start	1. Loss of compression Primary compression leak past oil seal Primary compression leak past gasket surface Leaky cylinder head gasket Poorly tightened spark plug Worn piston ring or seized piston Damaged or defective piston Blown out cylinder head gasket Scores or scratches on cylinder wall	Replace Repair Retighten or replace Retighten Replace Replace Retighten or replace Repair or replace
	2. No sparks across spark plug gap Fouled plug or bridging Wet spark plug Fouled breaker points Improper point gap Improper ignition timing Defective ignition coil Ignition coil open or short circuited Shorted or defective condenser	Clean or replace Clean or replace Clean or replace Adjust or replace Adjust Replace Replace Replace
	3. Fuel not reaching carburetor Clogged fuel tube Clogged fuel cock Defective carburetor float valve Fuel filler cap hole clogged	Clean Clean Replace Clean
	4. Clutch out of order Burned or worn clutch weight shoe Weakened clutch weight spring	Replace Replace
	5. Starter pedal out of operation Too little a starter lever play Starter arm spring out of proper position or damaged Starter lever shaft stuck Wire rusted Weakened or damaged ratchet spring Worn or damaged starter ratchet Starter chain disconnected Starter spring out of proper position or damaged	Adjust Repair or replace Clean Lubricate Replace Replace Replace Replace
	6. Starter spring not released Excessive starter lever play Drive sprocket shaft seized Sustaining plate out of proper position or damaged	Adjust Replace Repair or replace



Engine starts but stops soon	<ol style="list-style-type: none"> 1. Spark plug fouled 2. Breaker points fouled 3. Engine out of time 4. Clogged fuel pipe 5. Clogged carburetor jet 6. Loss of crankcase compression 	<p>Clean or replace Clean or replace Adjust Clean Clean Repair</p>
Starter pedal does not return	<ol style="list-style-type: none"> 1. Starter arm spring weakened 2. Drive sprocket spring weakened 3. Starter ratchet out of order or damaged 	<p>Replace Replace Repair or replace</p>
Engine lacks power	<ol style="list-style-type: none"> 1. Worn or seized cylinder or piston ring 2. Engine out of time 3. Defective breaker points 4. Improper spark plug gap 5. Clogged carburetor jet 6. Improper float level 7. Air cleaner clogged 8. Excessive accumulation of carbon in exhaust muffler 	<p>Repair or replace Adjust Repair or replace Repair or replace Clean or replace Adjust Clean or replace Clean</p>
Engine overheats	<ol style="list-style-type: none"> 1. Excessive accumulation of carbon in combustion chamber 2. Float level too low (too lean a mixture) 3. Timing too far advanced 4. Excessive accumulation of carbon in combustion chamber 5. Starved engine 6. Brake not released 7. Excessive accumulation of carbon on piston and piston rings 	<p>Clean Adjust Adjust Clean Inspect Adjust Clean or replace</p>
Poor engine performance at low speed	<ol style="list-style-type: none"> 1. Ignition timing improper 2. Defective breaker point 3. Excessive spark plug gap 4. Spark too weak due to defective condenser or ignition coil 5. Float level improper 6. Carburetor air screw out of specification 	<p>Adjust Repair or replace Repair or replace Replace Adjust Adjust</p>
Poor engine performance at high speed	<ol style="list-style-type: none"> 1. Spark plug gap too little 2. Ignition timing too late 3. Breaker point defective 4. Ignition coil at fault 5. Improper float level 6. Clogged air cleaner element 7. Loss of crankcase compression 8. Leaky exhaust pipe or excessive accumulation of carbon in exhaust pipe 	<p>Repair or replace Adjust Replace Replace Adjust Clean or replace Repair Repair or replace</p>



Defective clutch	1. Clutch slips Worn or burned clutch weight shoe	Replace
	2. Clutch does not disengage Clutch weight not functioning properly	Repair
	3. Clutch engages too early (too late) Clutch spring weakened Worn or burned clutch weight shoe	Replace Replace
	4. Clutch drags at idling (engine stalls) Idling speed too fast Fatigued clutch spring Carburetor at fault	Adjust Replace Adjust or replace
Sparks do not jump across spark plug gap	1. Defective ignition coil	Replace
	2. Defective spark plug	Replace
	3. Breaker points fouled or point gap improper	Adjust or replace
Excessive carbon accumulation on spark plug electrodes	1. Too rich a mixture (carburetor or air cleaner clogged)	Adjust or clean
	2. Spark plug heat range improper	Replace
Burned breaker points	1. Points out of alignment or not properly contacted	Replace
	2. Condenser at fault	Replace
Spark plug electrodes excessively fouled	1. Carburetor out of adjustment	Adjust
	2. Flooded carburetor	Adjust
Spark plug electrodes	1. Improper heat range	Replace
	2. Engine overheating	See page 74
	3. Engine out of time	Adjust
	4. Loosened spark plug in head	Retighten
	5. Mixture too lean	Adjust
Heavy steering	1. Improper tire pressure	Adjust
	2. Loose handlebars	Retighten
	3. Front axle not tightened properly	Retighten
	4. Loosened or excessively tightened steering stem nut	Retighten or adjust
	5. Loosened or broken spoke	Retighten
	6. Deformed rim	Repair or replace
	7. Excessive rattle in ball bearing	Replace
	8. Bound wire or cable	Repair
Poor braking	1. Brake shoe partially contacted with brake drum	Repair or replace

Poor braking	2. Oily or greasy substances on brake lining or drum 3. Defective brake cable 4. Brake out of proper adjustment	Clean Replace Adjust
Brake unable to be adjusted	1. Excessively worn brake shoe 2. Excessively worn brake cam 3. Improper installation of brake arm on brake arm spindle (serration)	Replace Replace Replace
Unusual noise	1. At front shock absorber Front cushion starved of grease Loose front shock absorber 2. At drive chain or starter chain Excessive chain slack or deflection Worn chain tensioner Worn or starved chain Chain interfering with chain case	Grease Retighten Adjust or replace Replace Replace or lubricate Adjust



SPECIFICATIONS

<p>DIMENSIONS</p> <p>Overall length</p> <p>Overall width</p> <p>Overall height</p> <p>Wheel base</p> <p>Ground clearance</p> <p>Dry weight</p>	<p>1,550mm (61 in.)</p> <p>600mm (23.6 in.)</p> <p>1,000mm (39.4 in.)</p> <p>1,050mm (41.3 in.)</p> <p>125mm (4.9 in.)</p> <p>43 kg (94.8 lb.)</p>
<p>FRAME</p> <p>Type</p> <p>F. suspension</p> <p>R. suspension</p> <p>F. tire size, pressure</p> <p>R. tire size, pressure</p> <p>F. brake</p> <p>R. brake</p> <p>Fuel capacity</p> <p>Fuel reserve capacity</p> <p>Caster angle</p> <p>Trail length</p> <p>Front fork grease</p>	<p>Back bone</p> <p>Telescopic fork</p> <p>Swing arm</p> <p>2.25 - 14 - 4PR 21 psi. (1.5kg/cm²)</p> <p>2.25 - 14 - 4PR 28 psi. (2.0kg/cm²)</p> <p>Internal expanding shoes</p> <p>Internal expanding shoes</p> <p>2.0 lit. (0.53 U.S. gal.)</p> <p>0.2 lit. (0.053 U.S. gal.)</p> <p>67°</p> <p>72mm (2.8 in.)</p> <p>5cc (0.18 ozs)</p>
<p>ENGINE</p> <p>Type</p> <p>Cylinder arrangement</p> <p>Bore and stroke (1977 model)</p> <p>Bore and stroke (1978 model)</p> <p>Displacement</p> <p>Compression ratio (1977 model)</p> <p>Compression ratio (1978 model)</p> <p>Transmission oil capacity</p> <p>Oil tank capacity</p> <p>Lubrication system</p> <p>Air screw opening</p> <p>Intake Open</p> <p> Close</p> <p>Exhaust Open</p> <p> Close</p> <p>Scavenge Open</p> <p> Close</p> <p>Idle speed</p>	<p>Air cooled, 2-stroke</p> <p>Single-cylinder flat</p> <p>40 x 39.6 mm (1.57 x 1.56 in.)</p> <p>40 x 39.3 mm (1.57 x 1.55 in.)</p> <p>49 cc (2.99 cu. in.)</p> <p>6.7 : 1</p> <p>6.5 : 1</p> <p>0.75 lit. (0.79 U.S. qt.); 10W-40 motor oil</p> <p>0.8 lit. (0.8 lit. (0.84 U.S. qt.); 2 stroke injector oil</p> <p>Forced and wet sump</p> <p>2-1/8</p> <p>Automatically controlled</p> <p>Automatically controlled</p> <p>65° BBDC</p> <p>65° ABDC</p> <p>47° BBDC</p> <p>47° BBDC</p> <p>1,800 rpm</p>

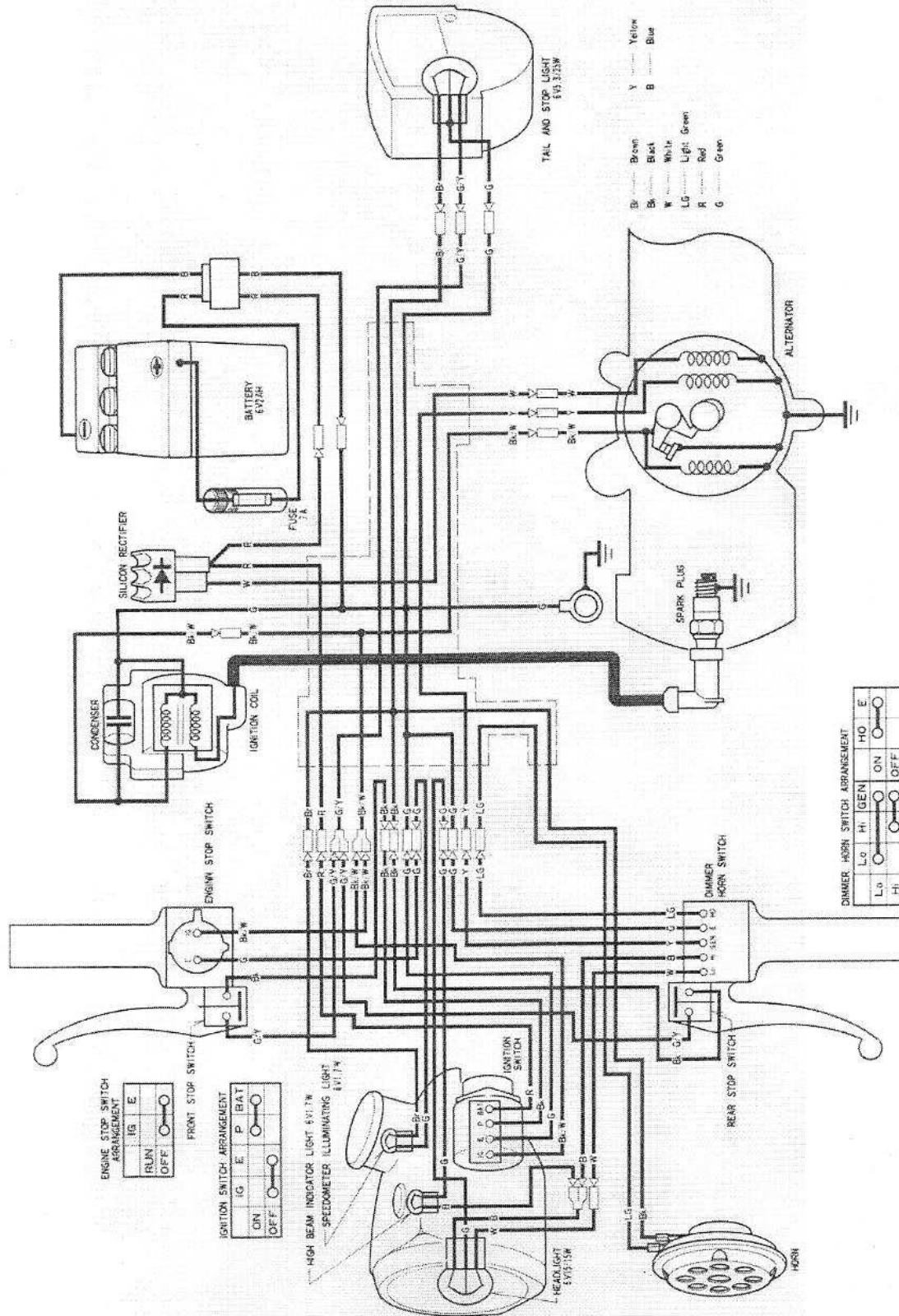
SPECIFICATIONS

HONDA
NC50


DRIVE TRAIN Clutch Primary reduction Final reduction	Automatic centrifugal wet type Chain and gear 14.220 : 1
ELECTRICAL Ignition Starting system Generator Spark plug (1977 model) Spark plug (1978 model) Spark plug gap Ignition timing Battery capacity Fuse capacity Headlight Low/High Tail/stoplight Speedometer light High beam indicator light	Magneto and battery Tap starter A.C. generator 6V 0.063kw/6,000 rpm NGK BP6HS, BP5HS; ND W20FP, W16FP NGK BP5HS, BP4HS; ND W16FP, W14FP-L 0.6 – 0.7mm (0.024 – 0.028 in.) 18° BTDC 6V 2AH 7 amp. 15/15 watt (21/21 CP) 5.3/25 watt (3/32 CP) 1.7 watt (1 CP) SAE TRADE No. 51 1.7 watt (1 CP) SAE TRADE No. 51



WIRING DIAGRAM



00303-147-6710



HONDA NA50

FORWORD

Refer to the base NC50 shop manual for service items not described in this addendum.

This addendum contains service procedures and data for the '79 Honda NA50.

ALL INFORMATION, ILLUSTRATIONS, DIRECTIONS AND SPECIFICATIONS INCLUDED IN THIS PUBLICATION ARE BASED ON THE LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF APPROVAL FOR PRINTING. HONDA MOTOR CO., LTD. RESERVES THE RIGHT TO MAKE CHANGES AT ANY TIME WITHOUT NOTICE AND WITHOUT INCURRING ANY OBLIGATION WHATEVER.

NO PART OF THIS PUBLICATION MAY BE REPRODUCED WITHOUT WRITTEN PERMISSION.

HONDA MOTOR CO., LTD.
Service Publications Office

TABLE OF CONTENTS

FEATURES	28 - 2
SERVICING PROCEDURES	28 - 3
1. INSPECTION/ADJUSTMENT	28 - 4
2. ENGINE REMOVAL/INSTALLATION	28 - 6
3. Frame HANDLEBAR/FRONT FORK/FRONT WHEEL	28 - 8
4. Frame REAR SHOCK ABSORBER/FUEL TANK/SEAT	28 - 9
5. ELECTRICAL	28 - 11
6. CABLE ROUTING	28 - 12
7. SPECIFICATIONS	28 - 13
8. WIRING DIAGRAM	28 - 15



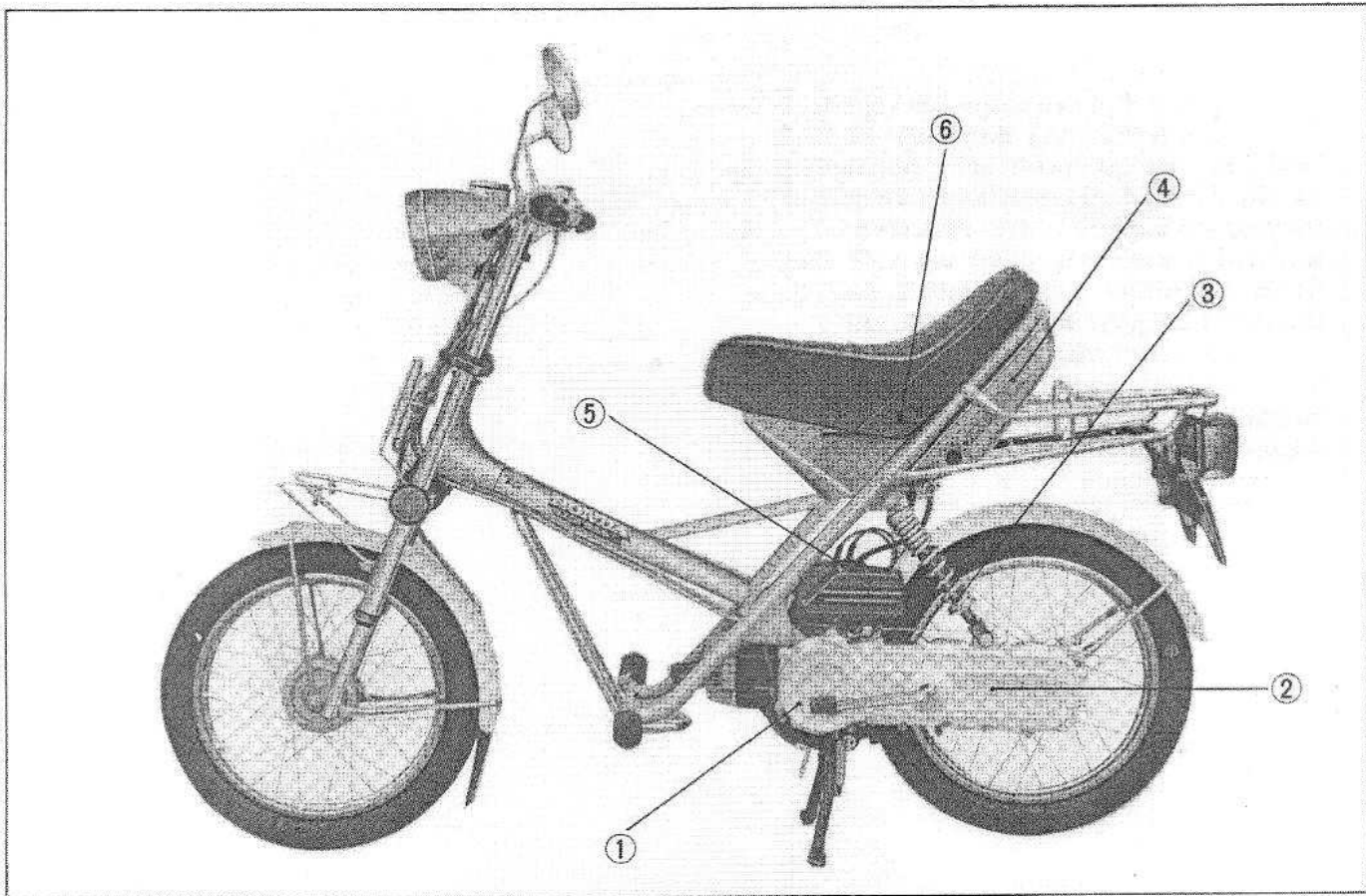
FEATURES

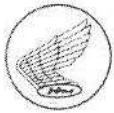
The Honda NA50 is powered by a 2-stroke, 49 cc, crankcase scavenged engine with two reed valves incorporated in the intake port.

Limited maintenance items and simplified service procedures provide a "easy-maintenance" model design.

A new starting mechanism design simplifies starting.

- ① A starting spring builds power for cranking the engine for easier starting.
- ② The power train enclosed in the left crankcase is oil-bath lubricated. The engine and left crankcase move together on a pivot in the frame.
- ③ The rear wheel is suspended by one rear shock absorber on the left side combined with the L crankcase.
- ④ Since an independent lubrication system is employed, fuel and oil are separately filled in to the gasoline tank.
- ⑤ A high-performance plunger type pump is utilized for lubrication purposes.
- ⑥ Electrical units, fuel and oil filler caps are beneath the seat.





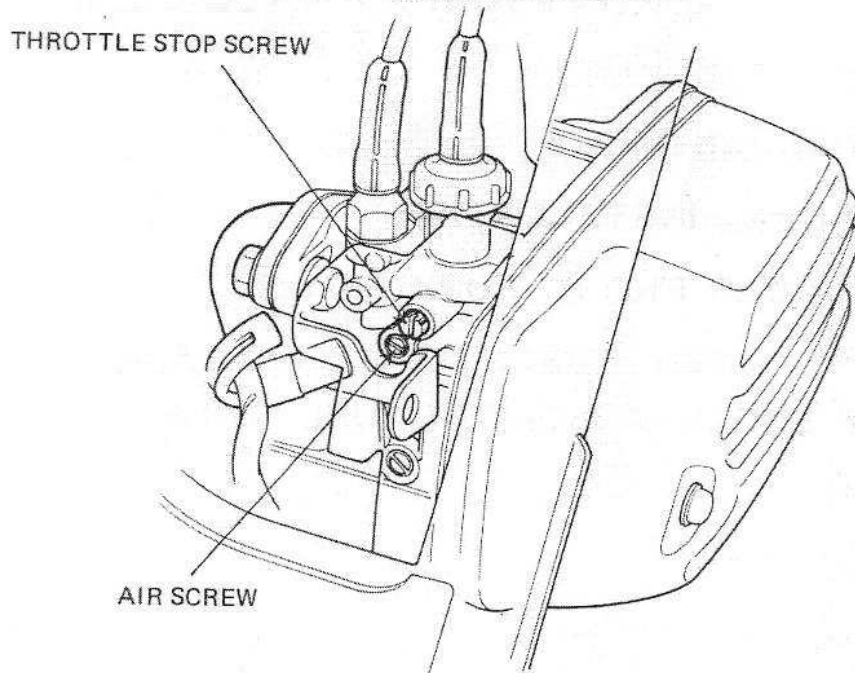
HONDA
NA50

SERVICING PROCEDURES

1. INSPECTION/ADJUSTMENT
2. ENGINE REMOVAL/INSTALLATION
3. Frame HANDLEBAR/FRONT FORK/FRONT WHEEL
4. Frame REAR SHOCK ABSORBER/FUEL TANK /SEAT
5. ELECTRICAL
6. CABLE ROUTING
7. SPECIFICATIONS
8. WIRING DIAGRAM

INSPECTION/ADJUSTMENT

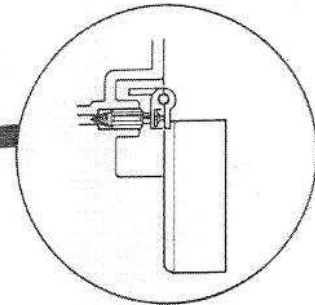
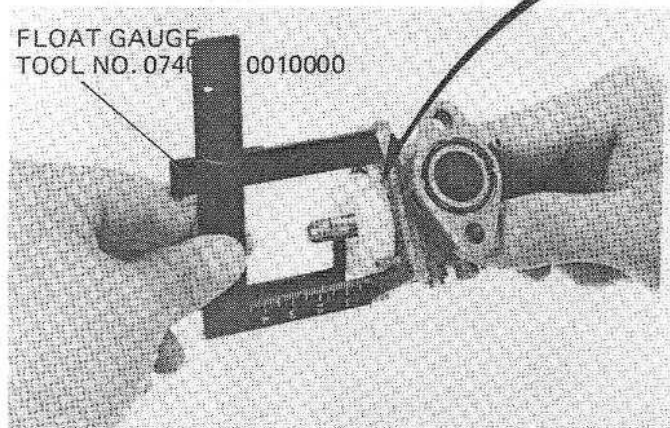
(IDLE ADJUSTMENT)



- ① Warm up the engine. Turn the throttle stop screw out to obtain the lowest stable idle speed.
- ② Turn the air screw either in or out to obtain the highest idle speed. Then turn the screw in approximately 1/4 turn.
- ③ Adjust the throttle stop screw until the engine runs at the specified idle speed.

IDLE SPEED: 1,800 rpm.

(FUEL LEVEL)



Measure the float level with the float arm just contacting the float valve.
 Float level: 10.2 mm (0.402 in)

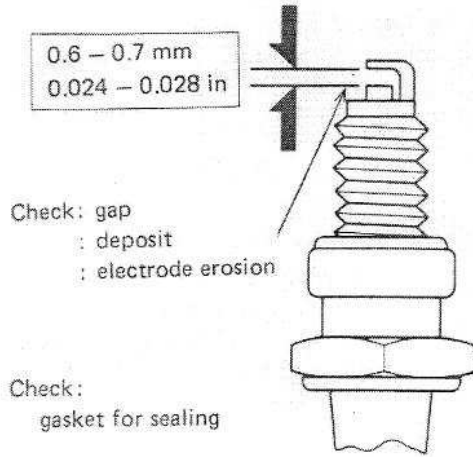
The float level is non-adjustable. Replace the carburetor float or float valve if the level is not correct.



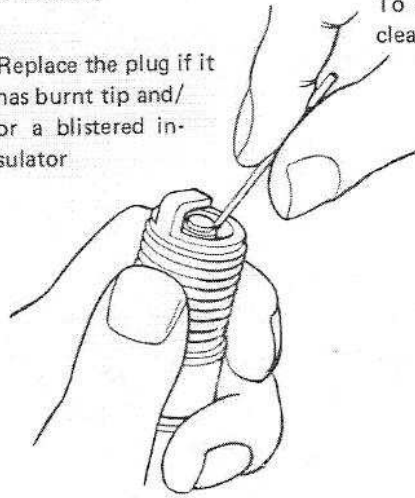
HONDA NA50

INSPECTION/ADJUSTMENT

(SPARK PLUG)



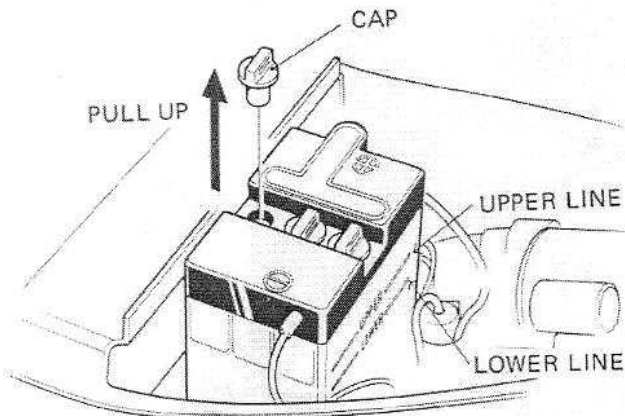
Replace the plug if it has burnt tip and/or a blistered insulator



Use only the specified spark plug:

BP4HS, BP5HS [NGK]
W14FP-L, W16FP [ND]

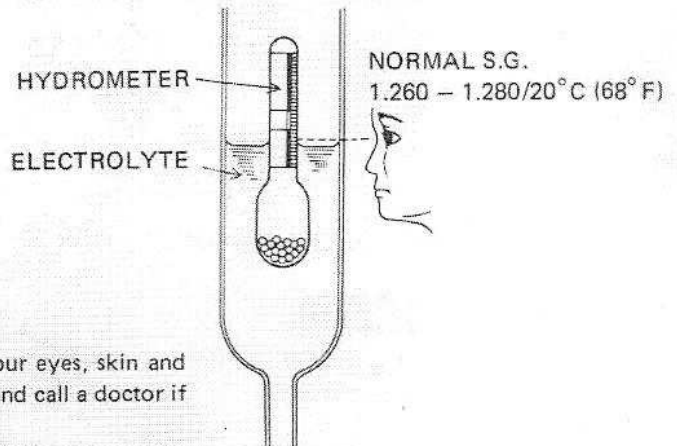
(BATTERY ELECTROLYTE LEVEL CHECK/REPLENISHMENT)



NOTE

Use only distilled water in the battery.
Tap water will shorten battery service life.

— READING SPECIFIC GRAVITY OF ELECTROLYTE —



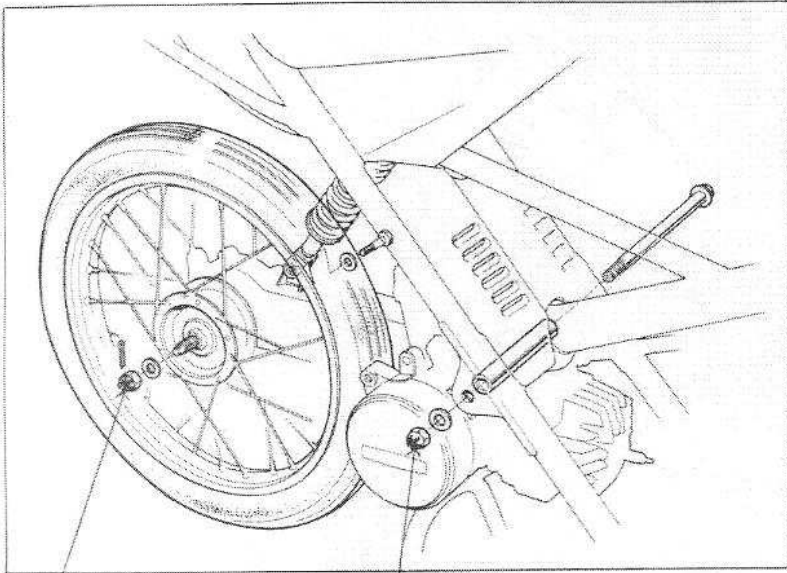
WARNING

- The battery electrolyte contains sulfuric acid. Protect your eyes, skin and clothing. In case of contact, flush thoroughly with water and call a doctor if electrolyte gets in your eyes.
- The battery generates hydrogen gas. Do not smoke or allow flames or sparks near the battery, especially while charging it.

ENGINE REMOVAL/ INSTALLATION

All service operations except crankshaft work may be performed with the engine in the frame.

- ① REAR SHOCK ABSORBER/ENGINE MOUNTING BOLT/REAR WHEEL/MAIN STAND

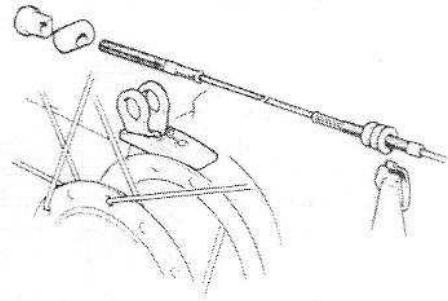


NOTE

400 – 500kg · cm
(29 – 36ft·lbs)

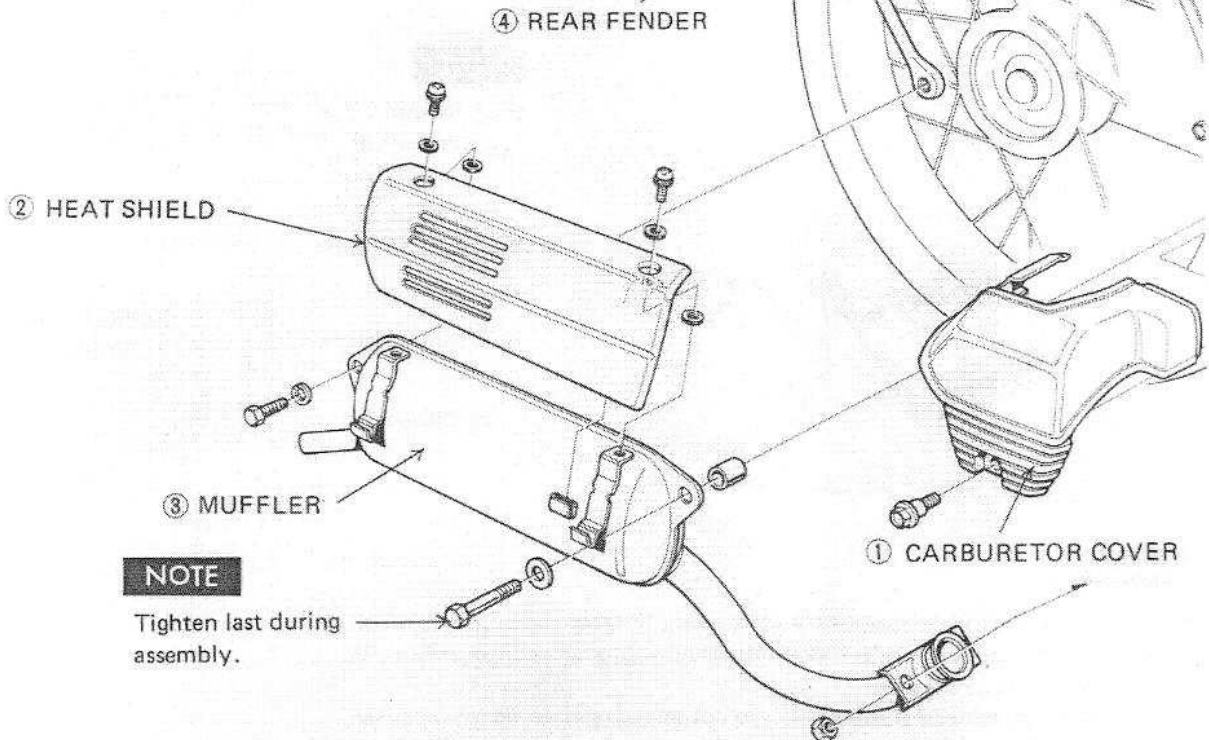
NOTE

300 – 400 kg · cm
(22 – 29ft·lbs)



- ⑩ REAR BRAKE CABLE

Adjustment: Base Manual
Pages 8 - 1 and 8 - 2.



- ② HEAT SHIELD

- ④ REAR FENDER

- ③ MUFFLER

- ① CARBURETOR COVER

NOTE

Tighten last during assembly.

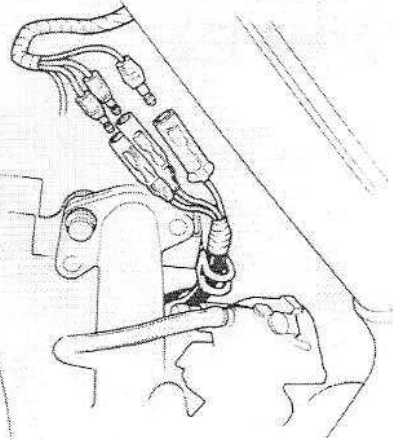


HONDA NA50

ENGINE REMOVAL/INSTALLATION

NOTE

Connect color-to-color on re-assembly.

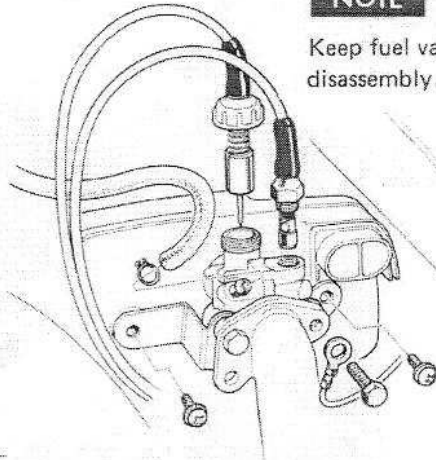


⑨ PRIMARY WIRE

⑦ CARBURETOR/AIR CLEANER

NOTE

Keep fuel valve closed during disassembly.

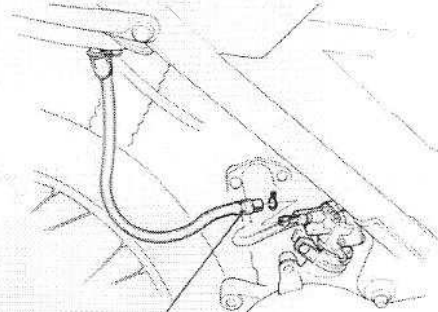


⑧ OIL TUBE

CAUTION

Bleed air from oil pump after assembly.

See Base Manual Page 8 - 7 "BLEEDING OIL PUMP."



⑥ SPARK PLUG CAP

NOTE

Plug tube end.

3 Frame HANDLEBAR/ FRONT FORK/ FRONT WHEEL

NOTE

600 – 900 km-cm
(43 – 65ft-lbs)

③ TOP CONE RACE

GREASE

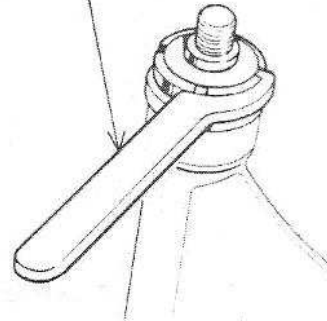
STEEL BALLS (26 PCS)

GREASE

② HANDLEBAR

① HANDLEBAR COVERS

PIN SPANNER
(No. 07916-0440000)



During assembly, tighten
then back off ¼ turn.

④ FRONT FORK

⑤ FRONT WHEEL

Disassembly and assembly,
See Base Manual page 17 - 2.

GREASE

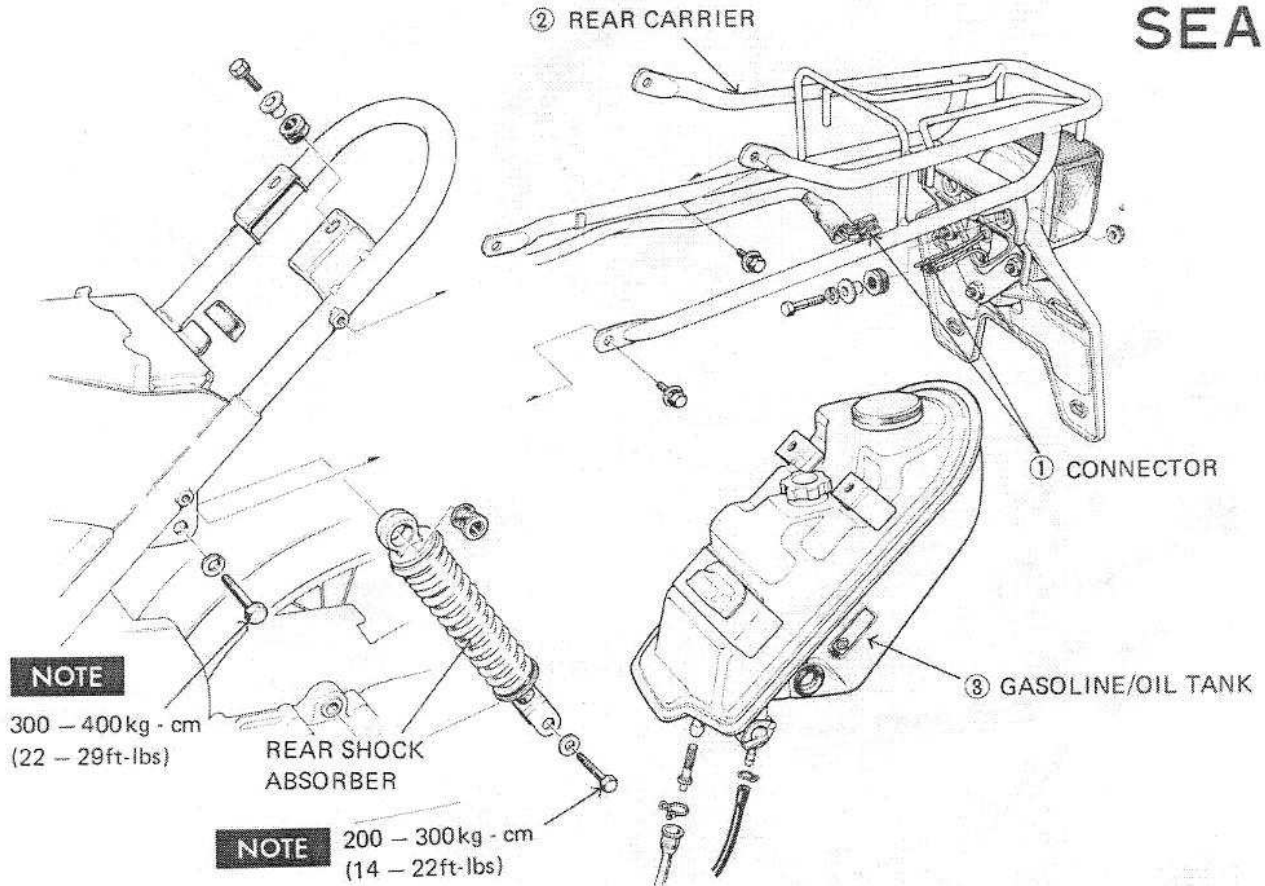
NOTE

300 – 400 kg-cm
(22 – 29ft-lbs)

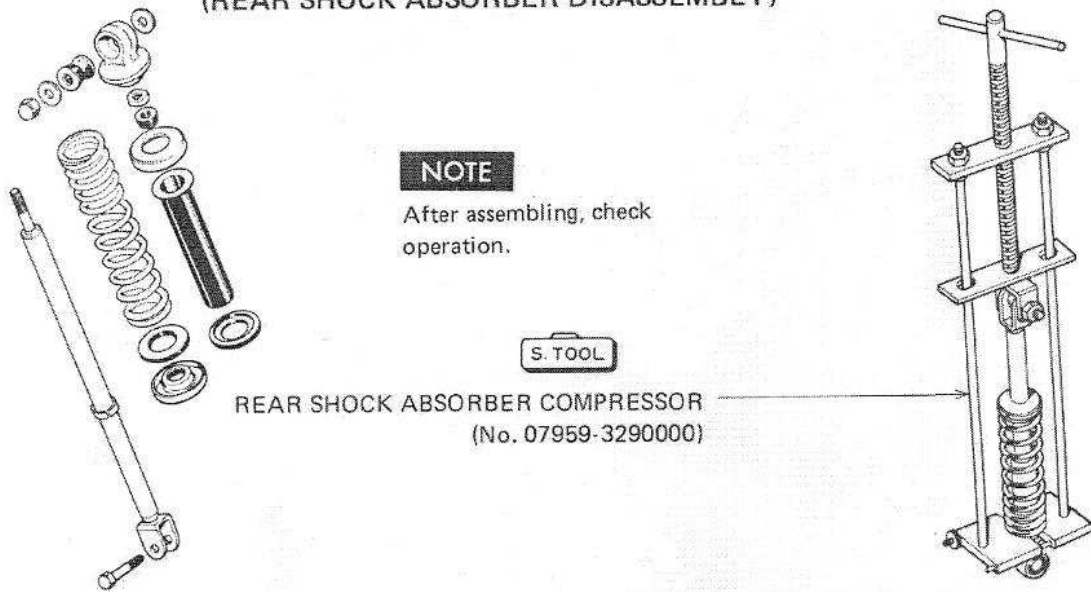
■ BALL RACE DISASSEMBLY AND ASSEMBLY, See Base Manual PAGE 17 - 3.



**REAR SHOCK ABSORBER/
FUELTANK/
SEAT**



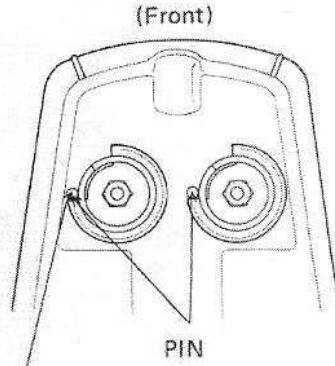
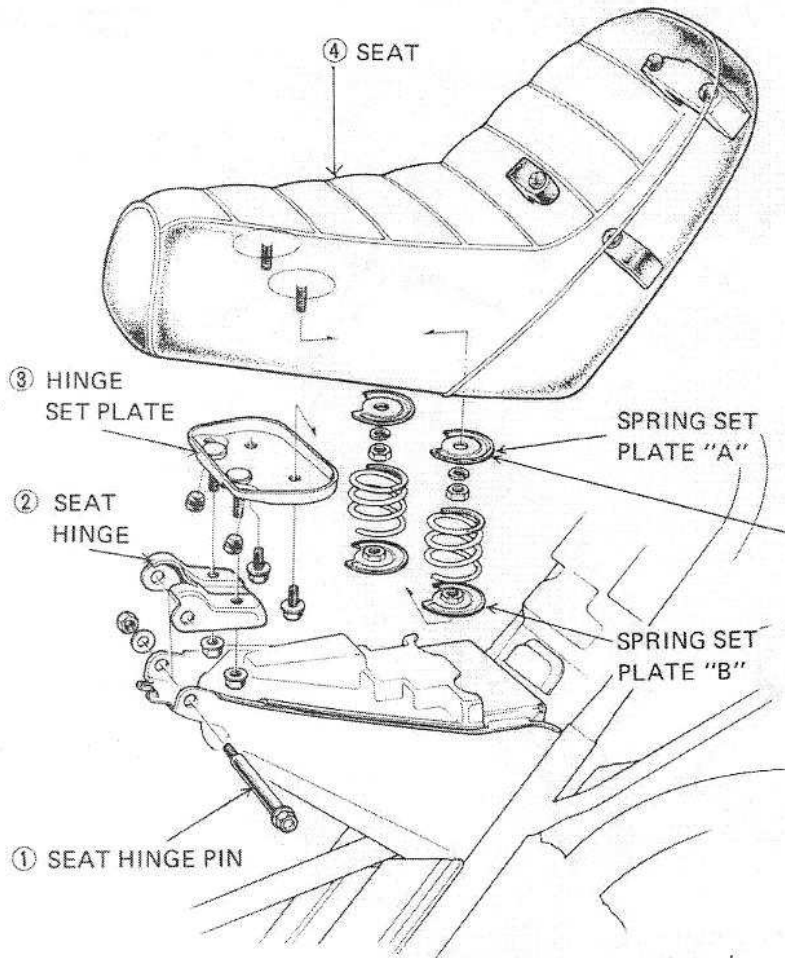
(REAR SHOCK ABSORBER DISASSEMBLY)



Frame
REAR SHOCK ABSORBER/
FUEL TANK/SEAT

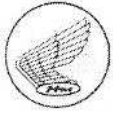


(SEAT)



NOTE

When installing, align the cut-out with the pin on the other side of the seat.



ELECTRICAL ACCESSORIES AND THEIR LOCATIONS

1. IGNITION SYSTEM

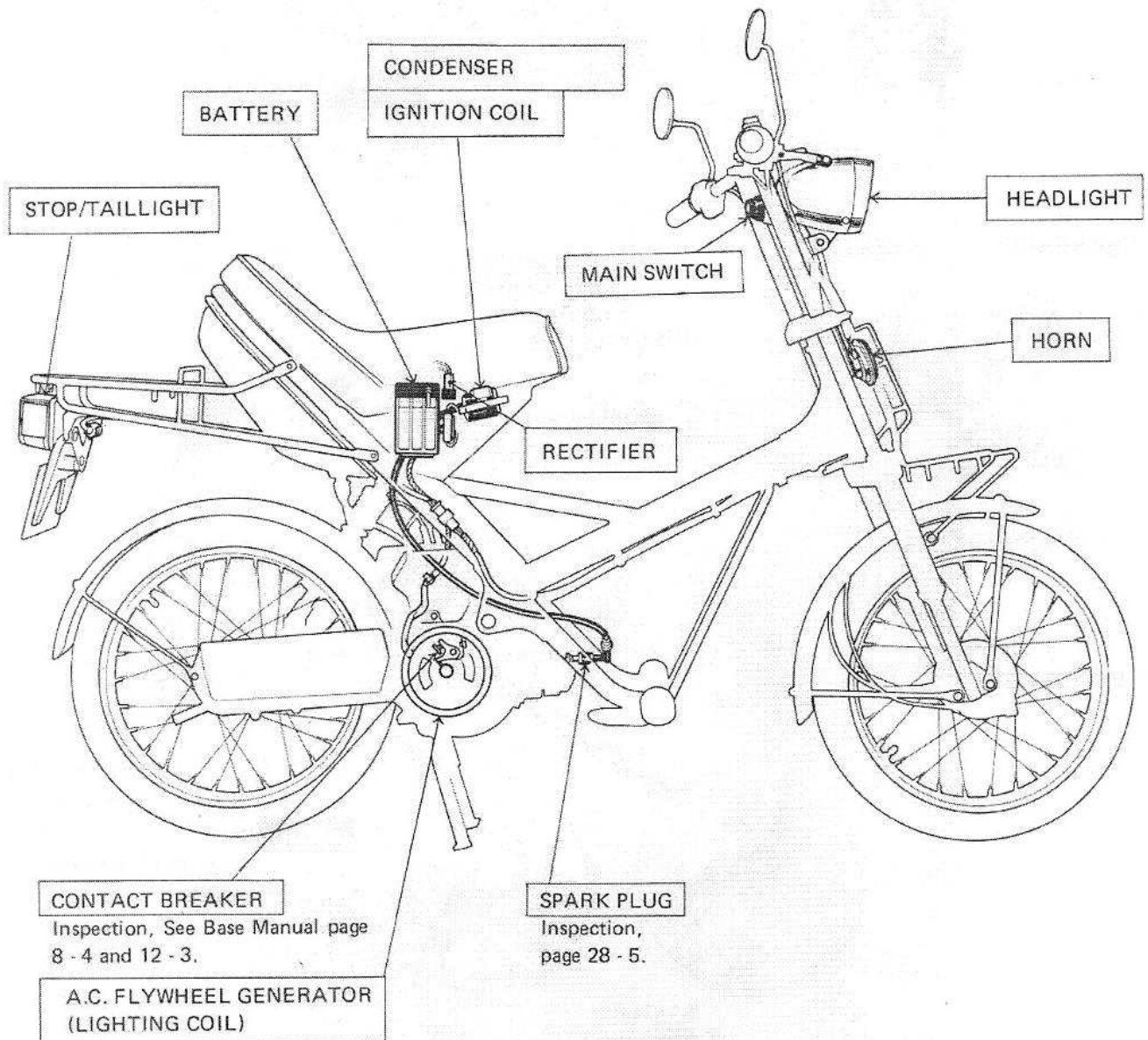
- CONTACT BREAKER
- IGNITION COIL
- CONDENSER
- SPARK PLUG

2. BATTERY CHARGING SYSTEM

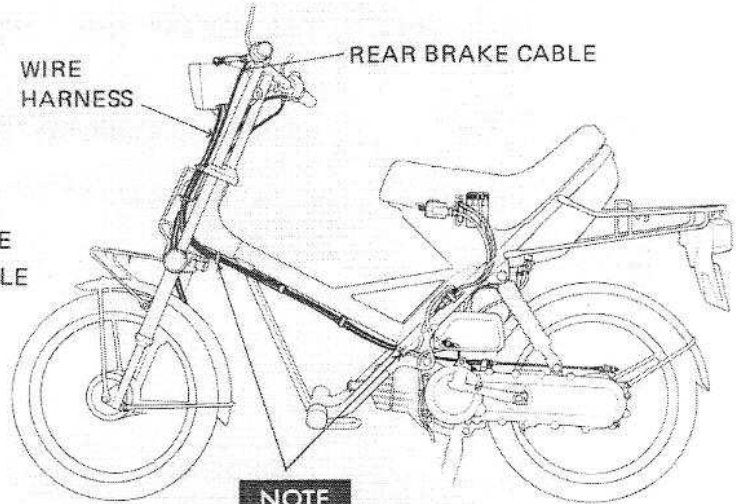
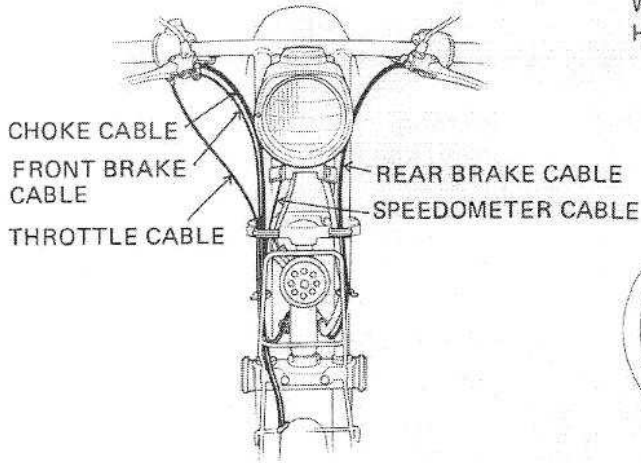
- A.C. FLYWHEEL GENERATOR
- RECTIFIER
- BATTERY

3. LIGHTING SYSTEM AND OTHERS

- HEADLIGHT
- STOP/TAILLIGHT
- HORN

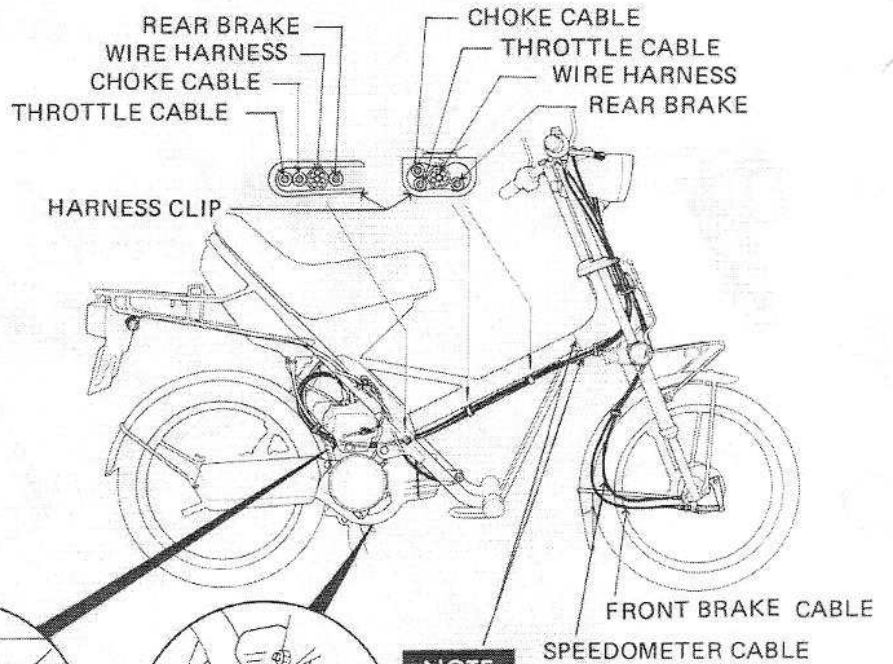
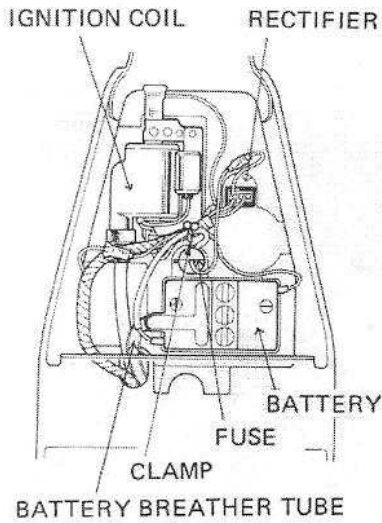


CABLE ROUTING



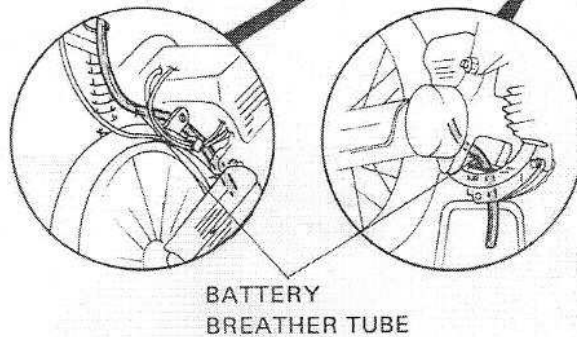
NOTE

Make sure the cables and harness are not twisted.



NOTE

Align the white cable mark with the frame coupler.





SPECIFICATIONS

DIMENSIONS Overall length Overall width Overall height Wheel base Ground clearance Dry weight	1,590 mm (62.6 in) 600 mm (23.6 in) 995 mm (39.0 in) 1,050 mm (41.3 in) 125 mm (4.9 in) 51 kg (112 lb)
FRAME Type F. suspension R. suspension F. tire size, pressure R. tire size, pressure F. brake R. brake Fuel capacity Fuel reserve capacity Caster angle Trail length Front fork grease	Back bone Telescopic fork Swing arm 2.25 - 14 - 4PR 18 psi (1.25kg/cm ²) 2.25 - 14 - 4PR 32 psi (2.25kg/cm ²) Internal expanding shoes Internal expanding shoes 2.5 lit (0.65 U S gal) 0.6 lit (0.16 U S gal) 23° 30' 76mm (3.0 in) 5cc (0.18 ozs)
ENGINE Type Cylinder arrangement Bore and stroke Displacement Compression ratio Transmission oil capacity Oil tank capacity Lubrication system Air screw opening Intake Open Close Exhaust Open Close Scavenge Open Close Idle speed	Air cooled, 2-stroke Single-cylinder flat 40 x 39.3mm (1.57 x 1.55 in) 49cc (3.0cu in) 6.5 : 1 0.75 lit. (0.79 U S qt); 10W - 40 motor oil 0.9 lit. (0.95 U S qt); 2 stroke injector oil Forced and wet sump 2 1/8 Reed valve controlled Reed valve controlled 65° BBDC 65° ABDC 47° BBDC 47° ABDC 1,800 rpm

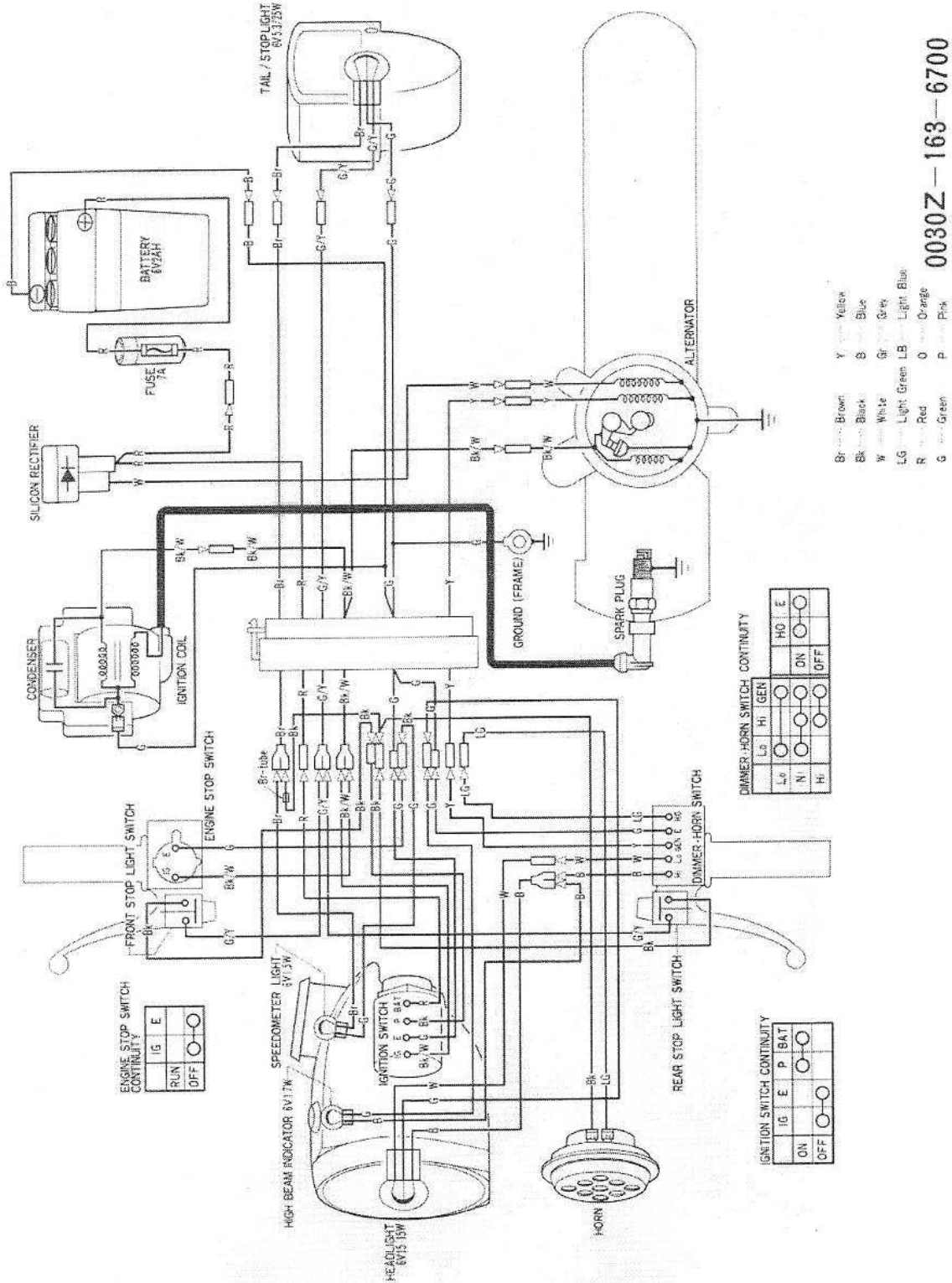
SPECIFICATIONS



<p>DRIVE TRAIN</p> <p>Clutch</p> <p>Primary reduction</p> <p>Final reduction</p>	<p>Automatic centrifugal wet type</p> <p>Chain and gear</p> <p>14.220 : 1</p>
<p>ELECTRICAL</p> <p>Ignition</p> <p>Starting system</p> <p>Generator</p> <p>Spark plug</p> <p>Spark plug gap</p> <p>Ignition timing</p> <p>Battery capacity</p> <p>Fuse capacity</p> <p>Headlight Low/High</p> <p>Tail/stoplight</p> <p>Speedometer light</p> <p>High beam indicator light</p>	<p>Magneto and battery</p> <p>Tap starter</p> <p>A.C. generator 6V 0.063kw/6,000 rpm</p> <p>NGK BP4HS, BP5HS; ND W14FP-L, W16FP</p> <p>0.6 – 0.7mm (0.024 – 0.028 in)</p> <p>18° BTDC</p> <p>6V 2AH</p> <p>7 amp</p> <p>6V-15/15W (21/21 CP)</p> <p>6V-5.3/25W (3/32 cp)</p> <p>6V-1.5W (1 CP)</p> <p>6V-1.7W (1 CP) SAE TRADE No. 51</p>



WIRING DIAGRAM





FOREWARD

Refer to the base shop manual for service items not described in this addendum.

This addendum contains service procedures and data for the 1980 Honda NC50.

TABLE OF CONTENTS

- 1. LUBRICATION SYSTEM. 29 - 2
- 2. INSPECTION/ADJUSTMENT. 29 - 3
- 3. ELECTRICAL 29 - 4
- 4. CABLE ROUTING 29 - 6
- 5. MAINTENANCE SCHEDULE 29 - 7
- 6. SPECIFICATIONS 29 - 8
- 7. WIRING DIAGRAM 29 - 10

ALL INFORMATION, ILLUSTRATIONS, DIRECTIONS AND SPECIFICATIONS INCLUDED IN THIS PUBLICATION ARE BASED ON THE LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF APPROVAL FOR PRINTING. HONDA MOTOR CO., LTD. RESERVES THE RIGHT TO MAKE CHANGES AT ANY TIME WITHOUT NOTICE AND WITHOUT INCURRING ANY OBLIGATION WHATEVER.

NO PART OF THIS PUBLICATION MAY BE REPRODUCED WITHOUT WRITTEN PERMISSION.

HONDA MOTOR CO., LTD.
Service Publications Office



LUBRICATION SYSTEM

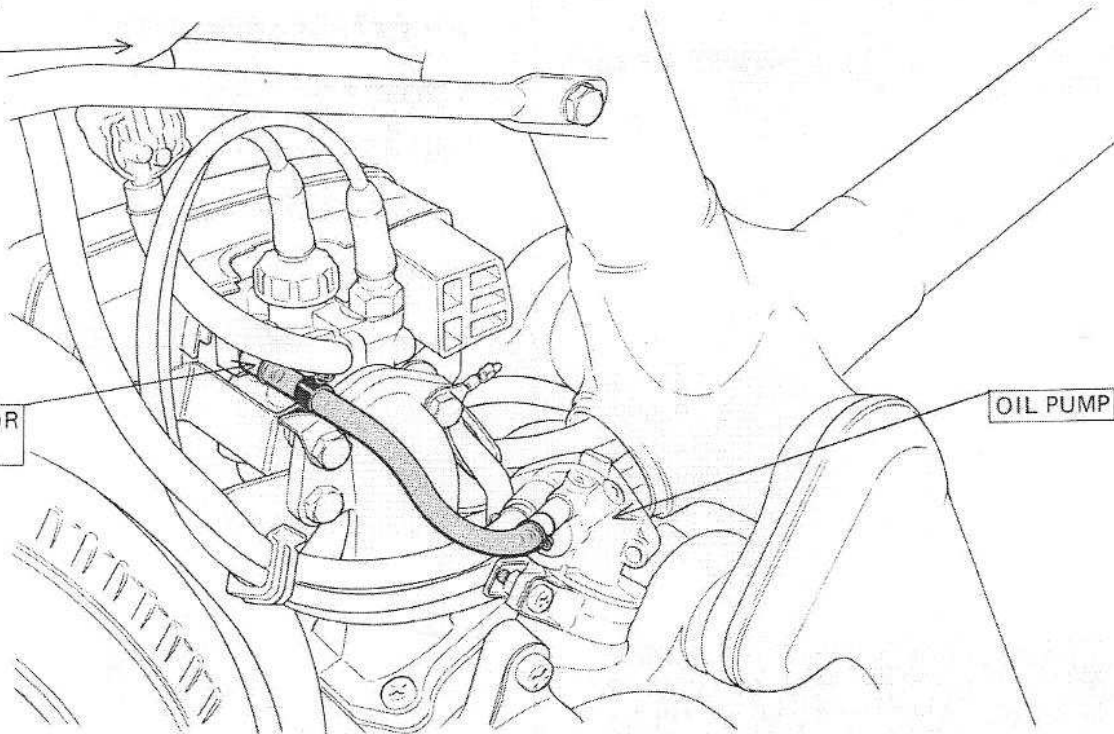
Engine lubricating oil is mixed with the fuel in the carburetor.

1980 NC50

OIL TANK

CARBURETOR
OIL INTAKE

OIL PUMP





**HONDA
NC50**

'80 ADDENDUM

2

INSPECTION/ ADJUSTMENT

CONTROL CABLE LUBRICATION

Disconnect the throttle, choke and brake control cables at their upper ends. Thoroughly lubricate the cables and their pivot points with a commercially available cable lubricant.

ELECTRICAL

ELECTRICAL ACCESSORIES AND THEIR LOCATIONS

1. IGNITION SYSTEM

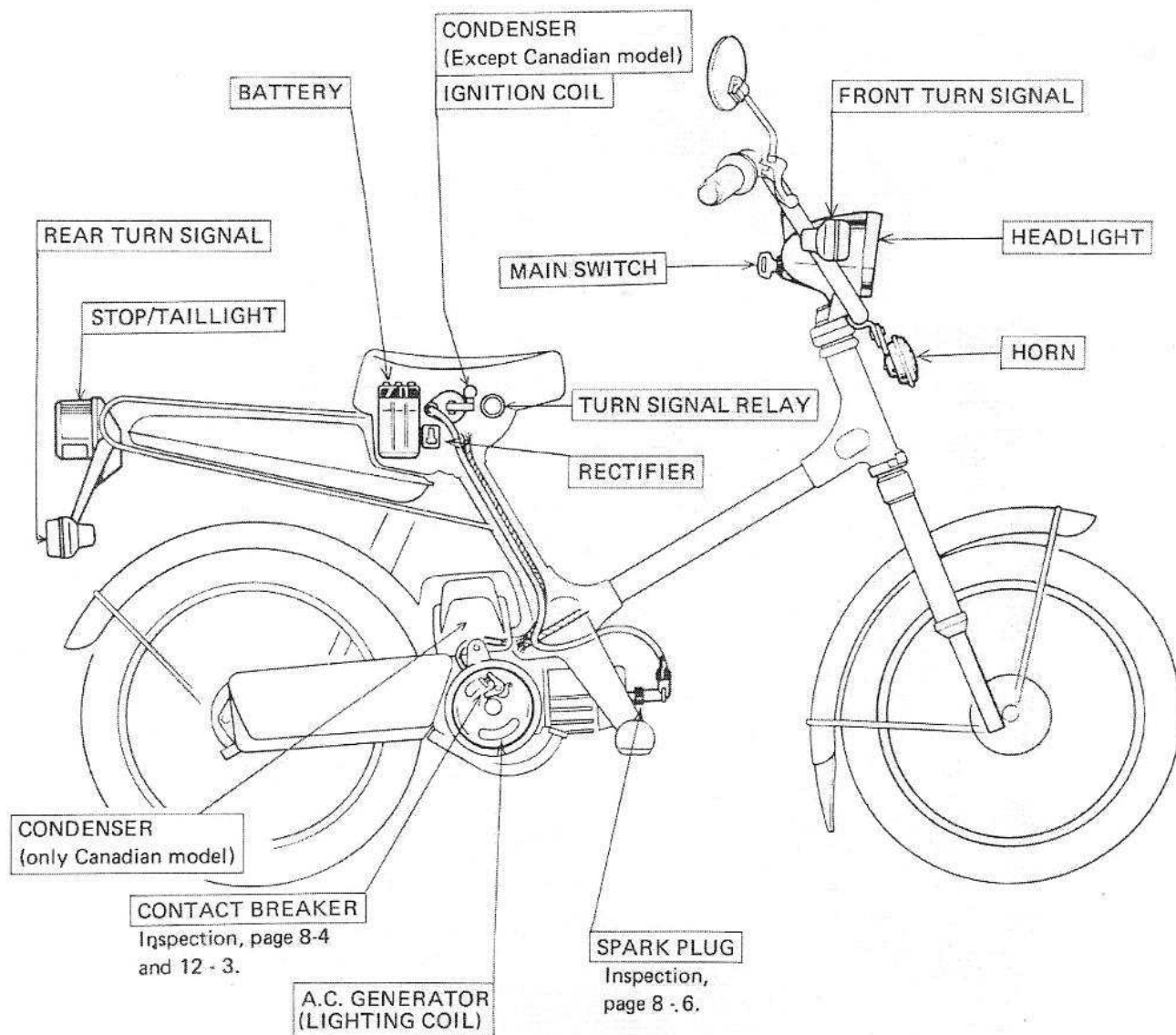
- CONTACT BREAKER
- IGNITION COIL
- CONDENSER
- SPARK PLUG

2. BATTERY CHARGING SYSTEM

- A.C. GENERATOR
- RECTIFIER
- BATTERY

3. LIGHTING SYSTEM

- HEADLIGHT
- STOP/TAILLIGHT
- HORN
- FRONT/REAR TURN SIGNAL
- TURN SIGNAL RELAY

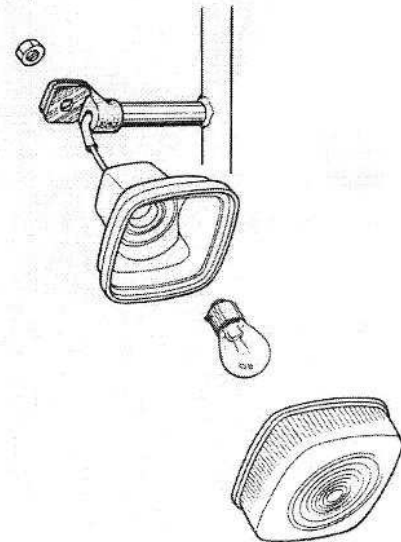
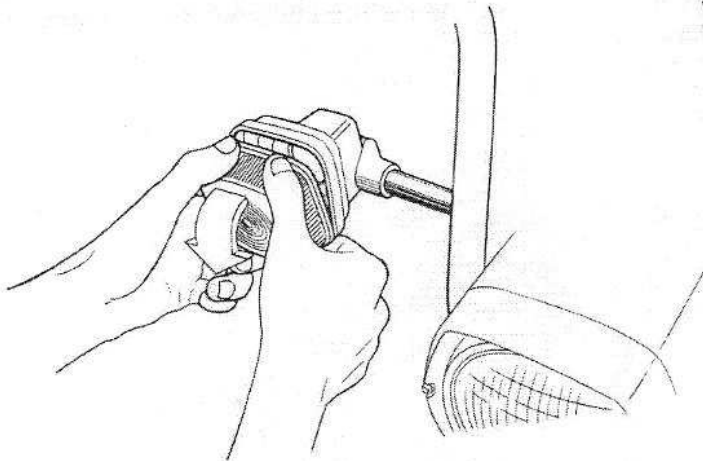




TURN SIGNAL

NOTE

20 — 40 kg-cm
(1.4 — 2.9 ft-lbs)



Remove the lens by pulling forward.
Install by pressing the lens top.

CONTINUITY

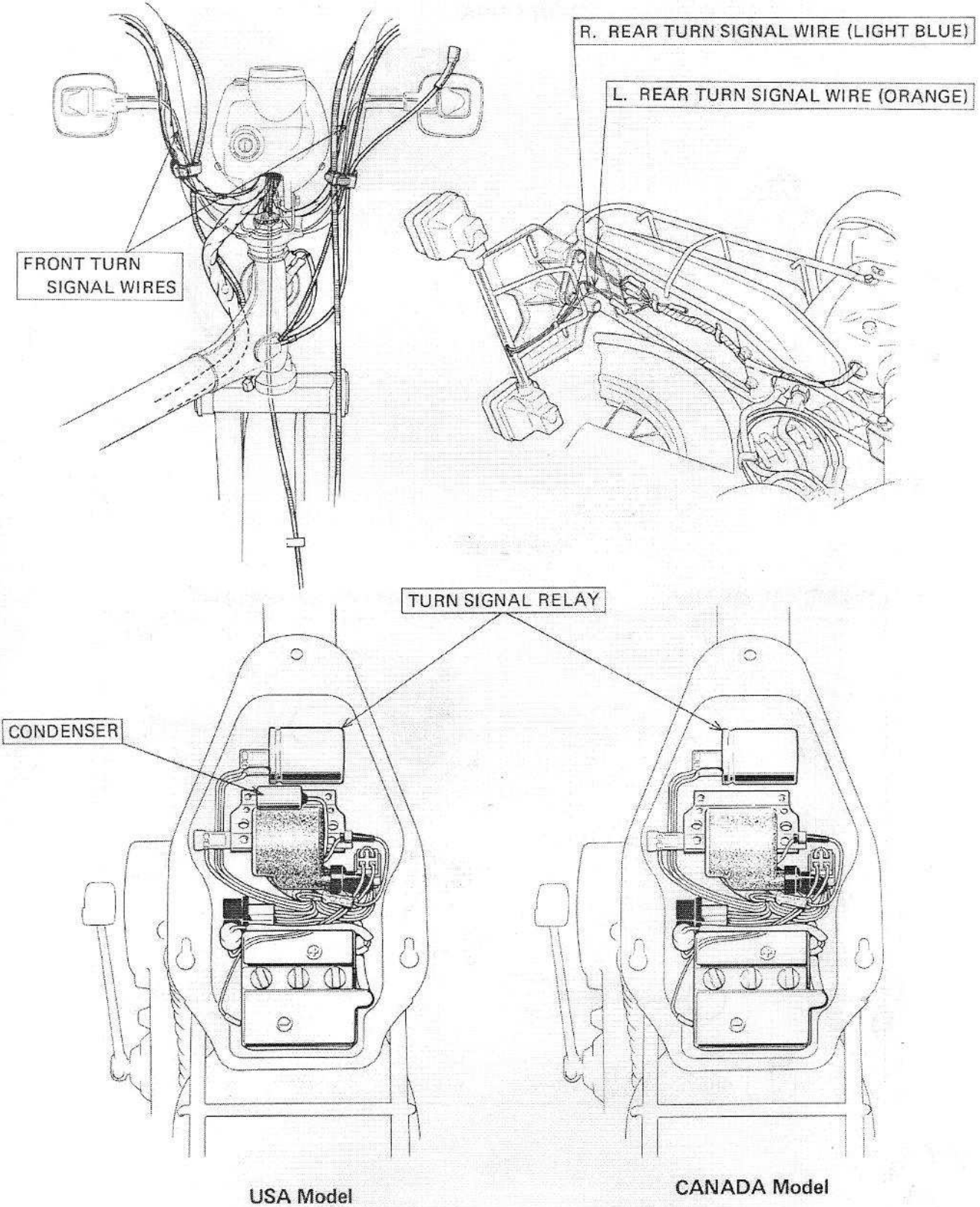
TURN SIGNAL SWITCH

HEADLIGHT HI-LOW SWITCH

	W	R	L		Lo	Hi	GEN
	○	○			○	○	○
				(N)	○	○	○
	○		○			○	○
Wire color	GRAY	LIGHT BLUE	ORANGE	Wire color	WHITE	BLUE	YELLOW



CABLE ROUTING





MAINTENANCE SCHEDULE

MAINTENANCE SCHEDULE This maintenance schedule is based upon average riding conditions. Machines subjected to severe use, or ridden in unusually dusty areas, require more frequent servicing.	PRE-RIDE INSPECTION	INITIAL SAFETY INSPECTION	REGULAR SERVICE PERIOD Perform at every indicated month or mileage interval, whichever occurs first.	
		1 month 200 miles 300 km	12 months 1,000 miles 1,500 km	24 months 2,000 miles 3,000 km
*TIRES AND PRESSURE	I			
CONTACT BREAKER POINTS		I	I	
IGNITION TIMING		I	I	
*THROTTLE OPERATION	I	I	I	
WHEEL TRUENESS AND SPOKES		I	I	
NUTS, BOLTS (TIGHTEN)		I	I	
BRAKE LININGS			I	
*BATTERY FLUID LEVEL	I			
BATTERY FLUID SPECIFIC GRAVITY			I	
SPARK PLUG			R	
AIR FILTER ELEMENT		(EVERY 6 MONTHS) C		
CARBURETOR		I	I	
FUEL FILTER SCREEN		C	C	
SUSPENSION OPERATION			I	
CLUTCH SHOEWEAR				I
TRANSMISSION OIL				R
DECARBONIZE CYLINDER HEAD AND MUFFLER				C
*BRAKE OPERATION AND FREE PLAY	I	I	I	
*OIL AND FUEL LEVEL	I			
*ALL LIGHTS	I			
*TRANSMISSION CASE FOR LEAKS	I			

I-Inspect and clean, adjust, lubricate or replace if necessary

R-Replace C-Clean

Items marked *are simple to perform and may be serviced by the owner.

Other maintenance items should be serviced by an authorized Honda dealer, unless the owner has the proper tools, and is mechanically proficient.



SPECIFICATIONS

DIMENSIONS Overall length Overall width Overall height Wheel base Ground clearance Dry weight	1,580 mm (62.2 in.) 600 mm (23.6 in.) 1,000 mm (39.4 in.) 1,050 mm (41.3 in.) 125 mm (4.9 in.) 47 kg (104 lb.)
FRAME Type F. suspension R. suspension F. tire size, pressure R. tire size, pressure F. brake R. brake Fuel capacity Fuel reserve capacity Caster angle Trail length Front fork grease	Back bone Telescopic fork Swing arm 2.25 - 14 (4 PR) 1.5kg/cm ² (21 psi.) 2.25 - 14 (4 PR) 2.0kg/cm ² (28 psi.) Internal expanding shoes Internal expanding shoes 2.0 lit. (0.53 U.S. gal. 0.44 Imp. gal.) 0.2 lit. (0.053 U.S. gal. 0.044 Imp. gal.) 67° 72mm (2.8 in.) 5cc (0.18 ozs)
ENGINE Type Cylinder arrangement Bore and stroke Displacement Compression ratio Transmission oil capacity Oil tank capacity Lubrication system Air screw opening Intake Open Close Exhaust Open Close Scavenge Open Close Idle speed	Air cooled, 2-stroke Single-cylinder flat 40 x 39.3mm (1.57 x 1.55 in.) 49cc (2.99 cu in.) 6.5 : 1 0.75 lit. (0.79 U.S. qt., 0.66 Imp. qt); 10W - 40 motor oil 0.8 lit. (0.84 U.S. qt., 0.70 Imp. qt); 2 storke injector oil Forced and wet sump 2-1/8 Reed valve controlled Reed valve controlled 65° BBDC 65° ABDC 47° BBDC 47° ABDC 1,800 rpm

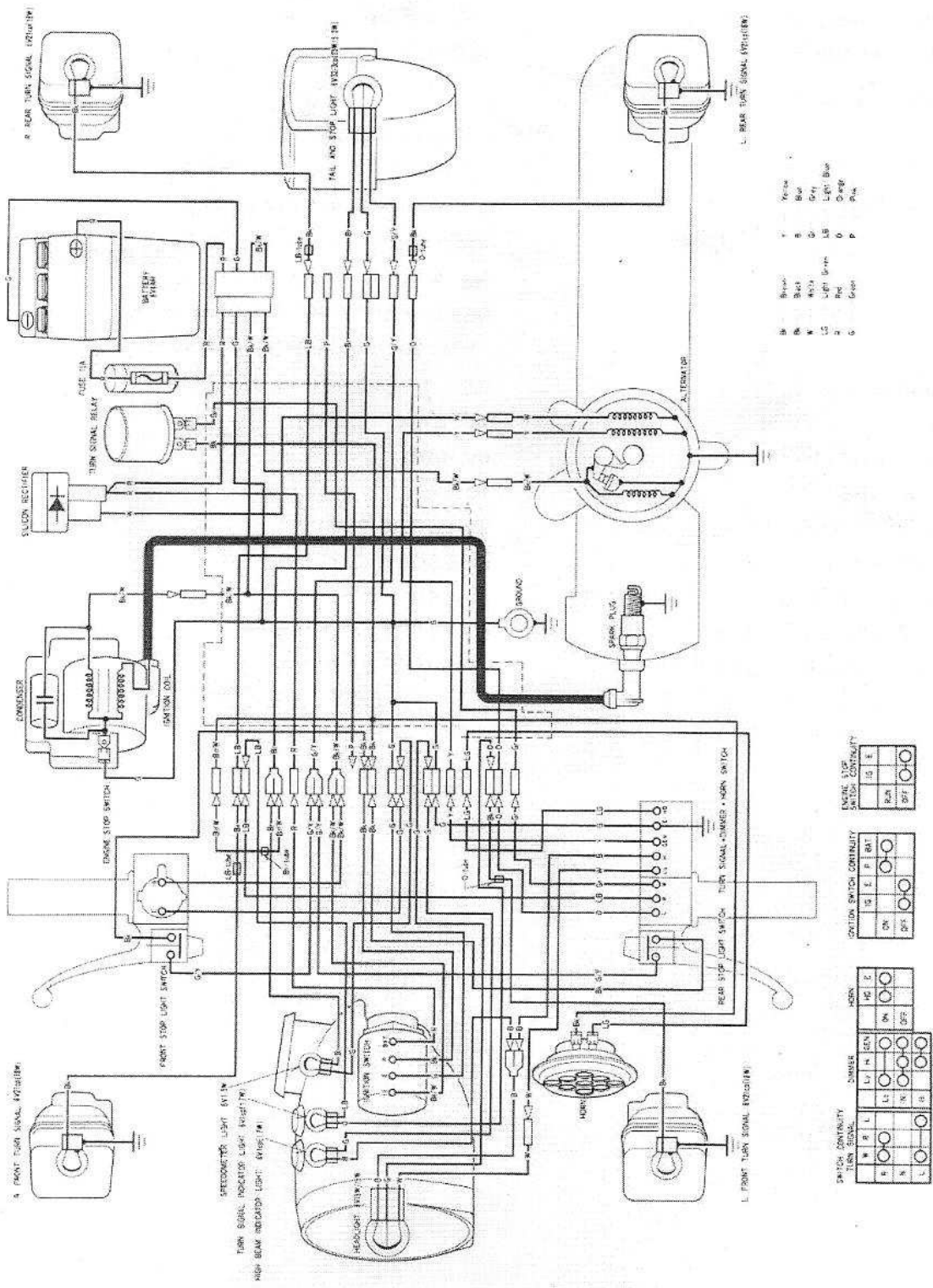


<p>DRIVE TRAIN</p> <p>Clutch</p> <p>Primary reduction</p> <p>Final reduction</p>	<p>Automatic centrifugal wet type</p> <p>Chain and gear</p> <p>14.220 : 1</p>
<p>ELECTRICAL</p> <p>Ignition</p> <p>Starting system</p> <p>Generator</p> <p>Spark plug () Optional</p> <p>Spark plug gap</p> <p>Ignition timing</p> <p>Battery capacity</p> <p>Fuse capacity</p> <p>Headlight Low/High</p> <p>Tail/stoplight</p> <p>Speedometer light</p> <p>High beam indicator light</p> <p>Turn signal light (Front/Rear)</p>	<p>Magneto and battery</p> <p>Tap starter</p> <p>A.C. generator 6V 63 w/6,000 rpm</p> <p>NGK BP4HS (BP5HS, BP2HS) } [U.S.A. model]</p> <p>ND W14FP-L (W16FP, W9FP-L) }</p> <p>NGK BPR4HS (BPR2HS, BPR5HS) } [CANADA model]</p> <p>ND W14FPR-L (W9FPR-L, W16FPR) }</p> <p>0.6 - 0.7mm (0.024 - 0.028 in.)</p> <p>18° BTDC</p> <p>6V 4AH</p> <p>10 amp.</p> <p>6V-15/15 W (21/21 CP)</p> <p>6V-5.3/25 W (3/32 cp)</p> <p>6V-1.5 W (1 CP)</p> <p>6V-1.7 W (1 CP) SAE No. 51</p> <p>6V-18/18W (21/21 CP)</p>

WIRING DIAGRAM

USA model

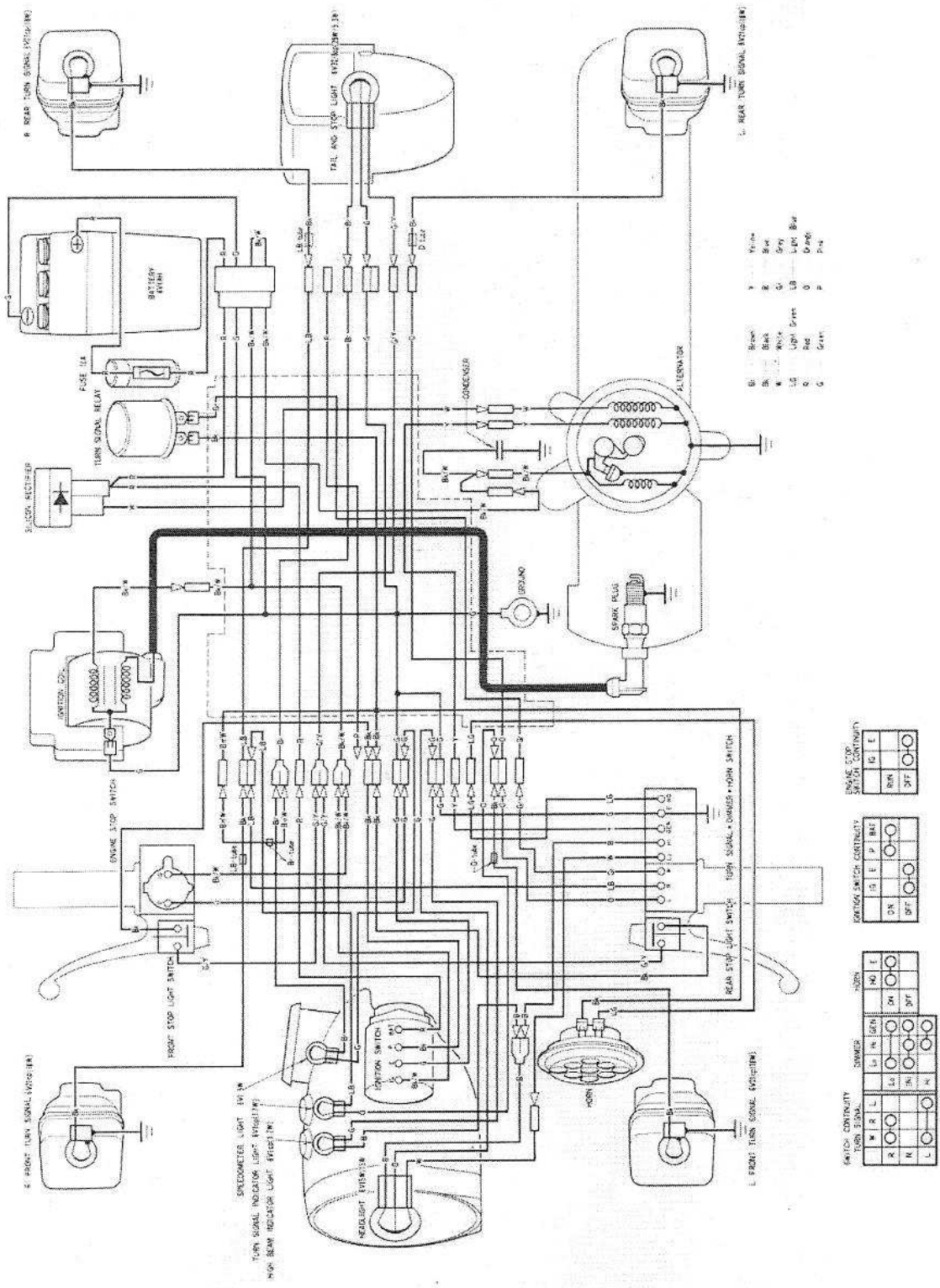
0030Z-147-9700





0030Z-147-9800

CANADA model



- B: Blue
- Bl: Black
- Br: Red
- Gr: Green
- Wh: White
- Y: Yellow
- Li: Light Green
- Lo: Light Orange
- Di: Dark Green
- P: Pink

SWITCH CONTINUITY	THORN	HORN
W R L	L R N	H L
O O O	O O O	O O O
R R N	R N N	R N N
O O O	O O O	O O O
L L L	L L L	L L L

ENGINE STOP SWITCH CONTINUITY
O R
O L
O N

ENGINE STOP SWITCH CONTINUITY
O R
O L
O N



FOREWARD

Refer to the base shop manual for service items not described in this addendum.

This addendum contains service procedures and data for the 1980 Honda NA50.

ALL INFORMATION, ILLUSTRATIONS, DIRECTIONS AND SPECIFICATIONS INCLUDED IN THIS PUBLICATION ARE BASED ON THE LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF APPROVAL FOR PRINTING. HONDA MOTOR CO., LTD. RESERVES THE RIGHT TO MAKE CHANGES AT ANY TIME WITHOUT NOTICE AND WITHOUT INCURRING ANY OBLIGATION WHATEVER.

NO PART OF THIS PUBLICATION MAY BE REPRODUCED WITHOUT WRITTEN PERMISSION.

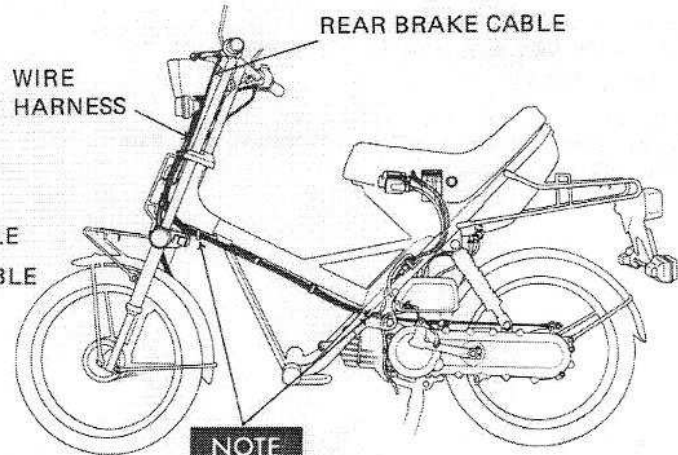
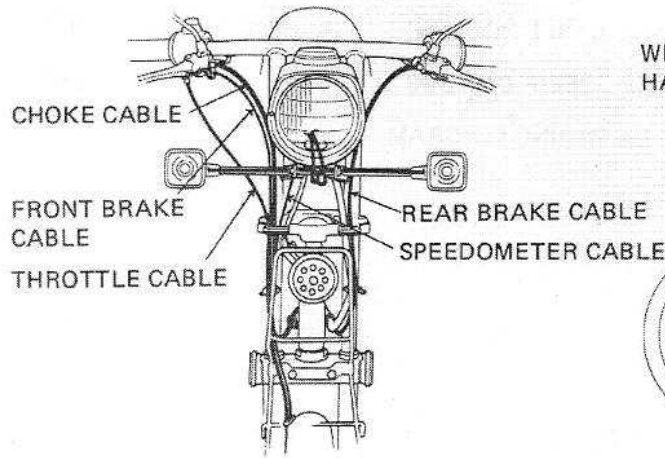
HONDA MOTOR CO., LTD.
Service Publications Office

TABLE OF CONTENTS

1. CABLE ROUTING	30-2
2. SPECIFICATIONS	30-3
3. WIRING DIAGRAM	30-5

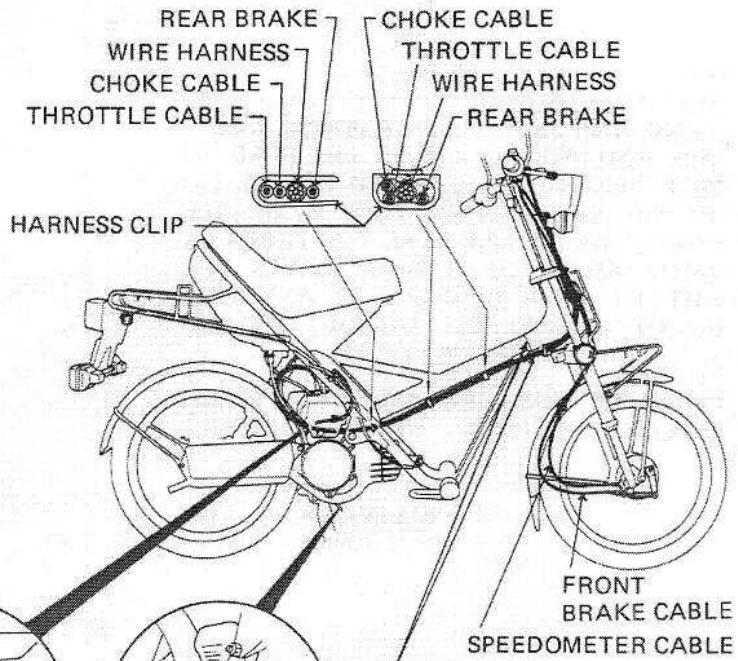
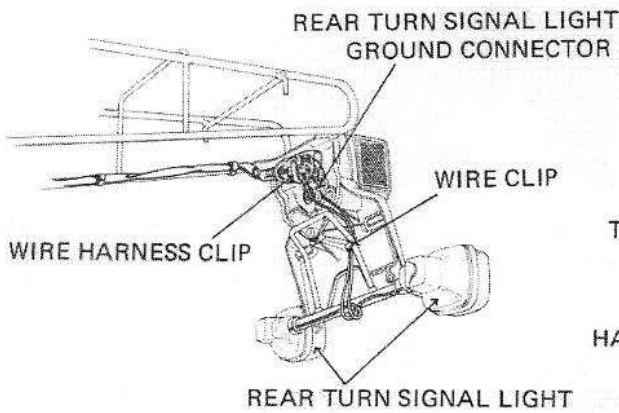
CABLE ROUTING

'80 ADDENDUM



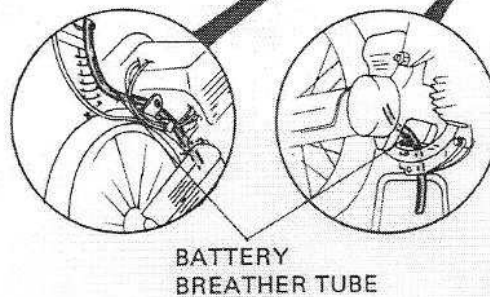
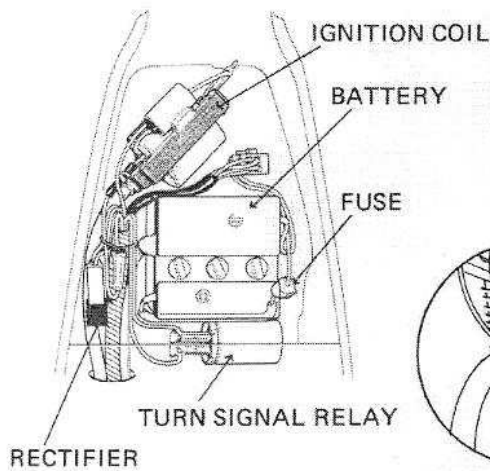
NOTE

Make sure the cables and harness are not twisted.



NOTE

Align the white cable mark with the frame coupler.





SPECIFICATIONS

<p>DIMENSIONS</p> <p>Overall length</p> <p>Overall width</p> <p>Overall height</p> <p>Wheel base</p> <p>Ground clearance</p> <p>Dry weight</p>	<p>1,660 mm (65.4 in)</p> <p>600 mm (23.6 in)</p> <p>995 mm (39.2 in)</p> <p>1,050 mm (41.3 in)</p> <p>125 mm (4.9 in)</p> <p>52 kg (114.7 lb)</p>
<p>FRAME</p> <p>Type</p> <p>F. suspension</p> <p>R. suspension</p> <p>F. tire size, pressure</p> <p>R. tire size, pressure</p> <p>F. brake</p> <p>R. brake</p> <p>Fuel capacity</p> <p>Fuel reserve capacity</p> <p>Caster angle</p> <p>Trail length</p> <p>Front fork grease</p>	<p>Back bone</p> <p>Telescopic fork</p> <p>Swing arm</p> <p>2.25 - 14 - 4PR 18 psi (1.25kg/cm²)</p> <p>2.25 - 14 - 4PR 32 psi (2.25kg/cm²)</p> <p>Internal expanding shoes</p> <p>Internal expanding shoes</p> <p>2.5 lit (0.65 U S gal)</p> <p>0.5 lit (0.13 U S gal)</p> <p>23° 30'</p> <p>76mm (3.0 in)</p> <p>5cc (0.18 ozs)</p>
<p>ENGINE</p> <p>Type</p> <p>Cylinder arrangement</p> <p>Bore and stroke</p> <p>Displacement</p> <p>Compression ratio</p> <p>Transmission oil capacity</p> <p>Oil tank capacity</p> <p>Lubrication system</p> <p>Air screw opening</p> <p>Intake Open</p> <p> Close</p> <p>Exhaust Open</p> <p> Close</p> <p>Scavenge Open</p> <p> Close</p> <p>Idle speed</p>	<p>Air cooled, 2-stroke</p> <p>Single-cylinder flat</p> <p>40 x 39.3mm (1.57 x 1.55 in)</p> <p>49cc (3.0cu in)</p> <p>6.5 : 1</p> <p>0.75 lit. (0.79 U S qt); 10W - 40 motor oil</p> <p>0.9 lit. (0.95 U S qt); 2 stroke injector oil</p> <p>Forced and wet sump</p> <p>2-1/8</p> <p>Reed valve controlled</p> <p>Reed valve controlled</p> <p>65° BBDC</p> <p>65° ABDC</p> <p>47° BBDC</p> <p>47° ABDC</p> <p>1,800 rpm</p>

SPECIFICATIONS

'80 ADDENDUM



<p>DRIVE TRAIN</p> <p>Clutch</p> <p>Primary reduction</p> <p>Final reduction</p>	<p>Automatic centrifugal wet type</p> <p>Chain and gear</p> <p>14.220 : 1</p>
<p>ELECTRICAL</p> <p>Ignition</p> <p>Starting system</p> <p>Generator</p> <p>Spark plug</p> <p>Spark plug gap</p> <p>Ignition timing</p> <p>Battery capacity</p> <p>Fuse capacity</p> <p>Headlight Low/High</p> <p>Tail/stoplight</p> <p>Turn signal</p> <p>Speedometer light</p> <p>High beam indicator</p> <p>Turn signal indicator</p>	<p>Magneto and battery</p> <p>Spring starter</p> <p>A.C. generator 6V 63W/6,000 rpm</p> <p>NGK BP4HS, (BP5HS) ND W14FP-L (W16FP)</p> <p>0.6 – 0.7 mm (0.024 – 0.028 in)</p> <p>18° BTDC</p> <p>6V 4AH</p> <p>10 amp</p> <p>6V-15/15W (21/21 CP)</p> <p>6V-5.3/25W (3/32 CP)</p> <p>6V-18/18W (21/21 CP)</p> <p>6V-1.5W (1 CP)</p> <p>6V-1.7W (1 CP) SAE No. 51</p> <p>6V-1.7W (1 CP) SAE No. 51</p>



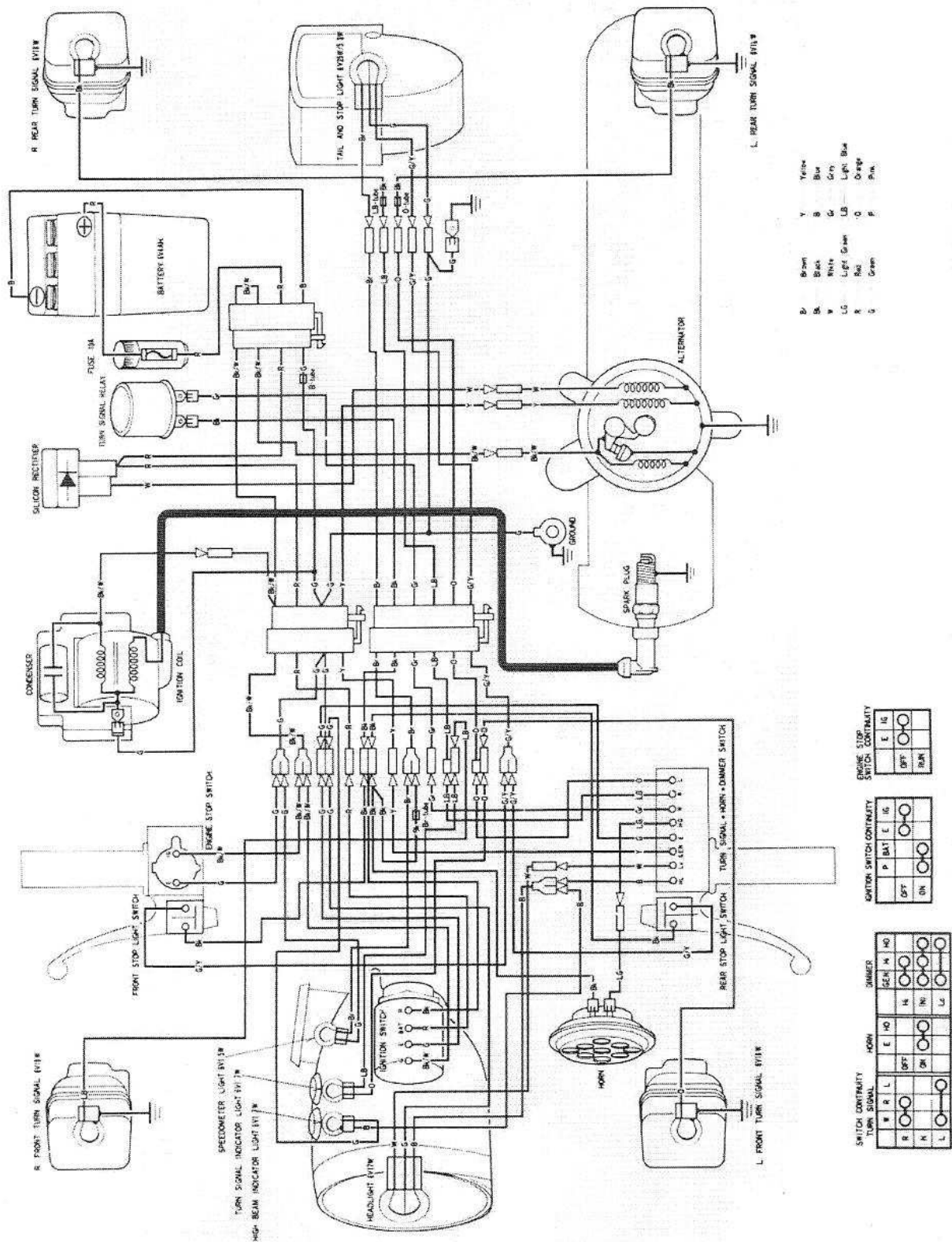
HONDA NA50

'80 ADDENDUM

WIRING DIAGRAM

3

NA50 - A TYPE



Y	Yellow
B	Brown
Bl	Black
W	White
R	Red
G	Green
LG	Light Green
LB	Light Blue
O	Orange
P	Pink

0030Z - 147 - 7700

ENGINE STOP SWITCH	E	IG
	OFF	ON

IGNITION SWITCH CONTINUITY	P	BAT	E	IG
	OFF	ON		

SWITCH CONTINUITY	HORN	CHIME	HORN	CHIME
TURN SIGNAL	L	R	L	R
	OFF	ON	OFF	ON



FOREWORD

This addendum contains service procedures and data for the 1981 Honda NC and NA50.

Refer to the base shop manual for items not described in this addendum.

ALL INFORMATION, ILLUSTRATIONS, DIRECTIONS AND SPECIFICATIONS INCLUDED IN THIS PUBLICATION ARE BASED ON THE LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF APPROVAL FOR PRINTING. HONDA MOTOR CO., LTD. RESERVES THE RIGHT TO MAKE CHANGES AT ANY TIME WITHOUT NOTICE AND WITHOUT INCURRING ANY OBLIGATION WHATEVER.

NO PART OF THIS PUBLICATION MAY BE REPRODUCED WITHOUT WRITTEN PERMISSION.

HONDA MOTOR CO., LTD.
Service Publications Office

TABLE OF CONTENTS

TECHNICAL FEATURES

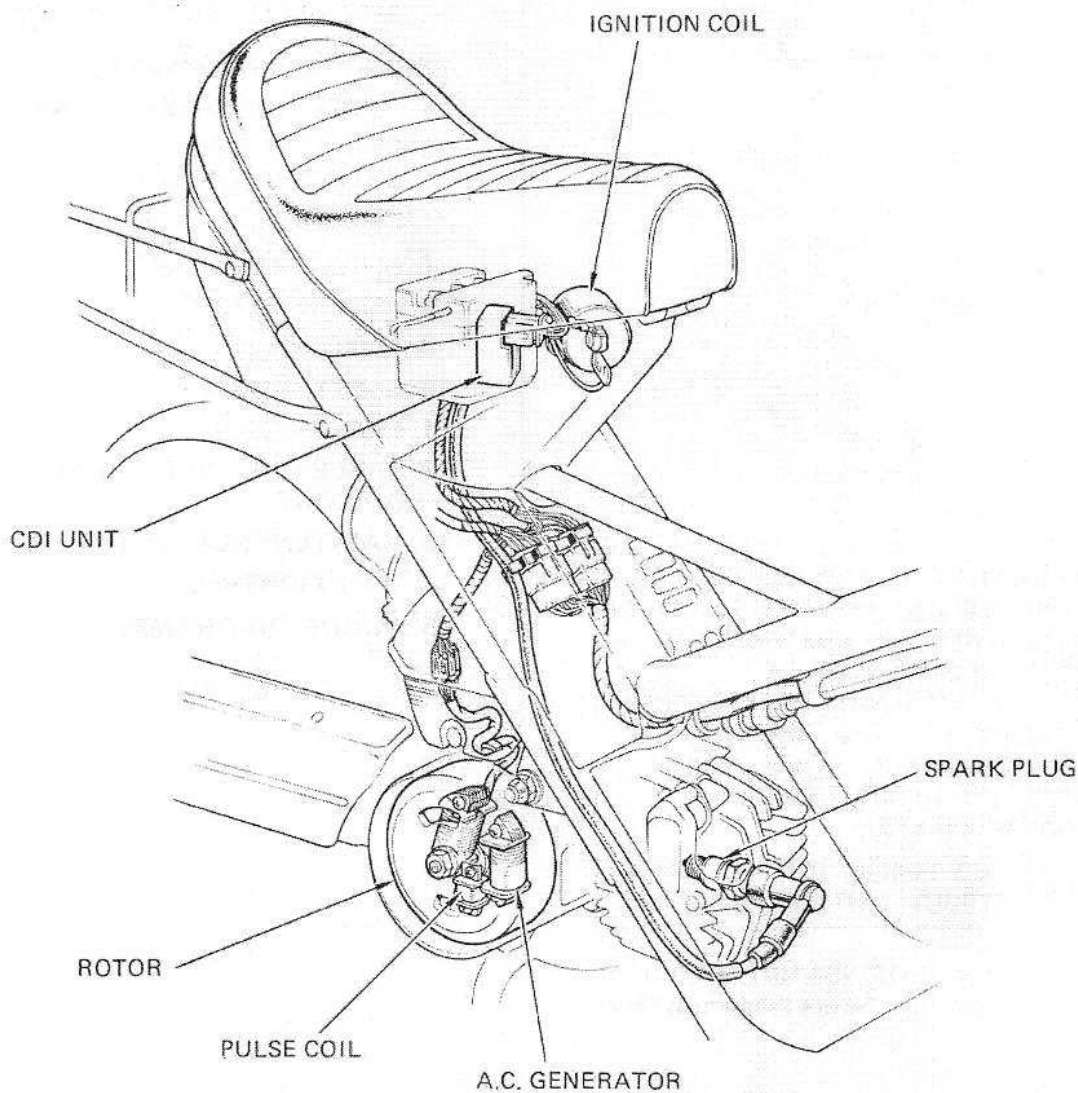
- 1. CAPACITOR DISCHARGE IGNITION..... 31-2
- 2. AUTOMATIC CHOKE 31-4
- 3. NA50 TWO-SPEED AUTOMATIC TRANSMISSION..... 31-6

SERVICING PROCEDURES

- 4. INSPECTION/ADJUSTMENT 31-8
- 5. CYLINDER HEAD/ CYLINDER/PISTON 31-11
- 6. OIL PUMP..... 31-12
- 7. A. C. GENERATOR 31-13
- 8. KICK STARTER 31-14
- 9. CLUTCH..... 31-15
- 10. ELECTRICAL..... 31-16
- 11. TOOLS 31-21
- 12. CABLE AND WIRE HARNESS ROUTING..... 31-22
- 13. MAINTENANCE SCHEDULE 31-24
- 14. SPECIFICATIONS 31-25
- 15. WIRING DIAGRAMS..... 31-27

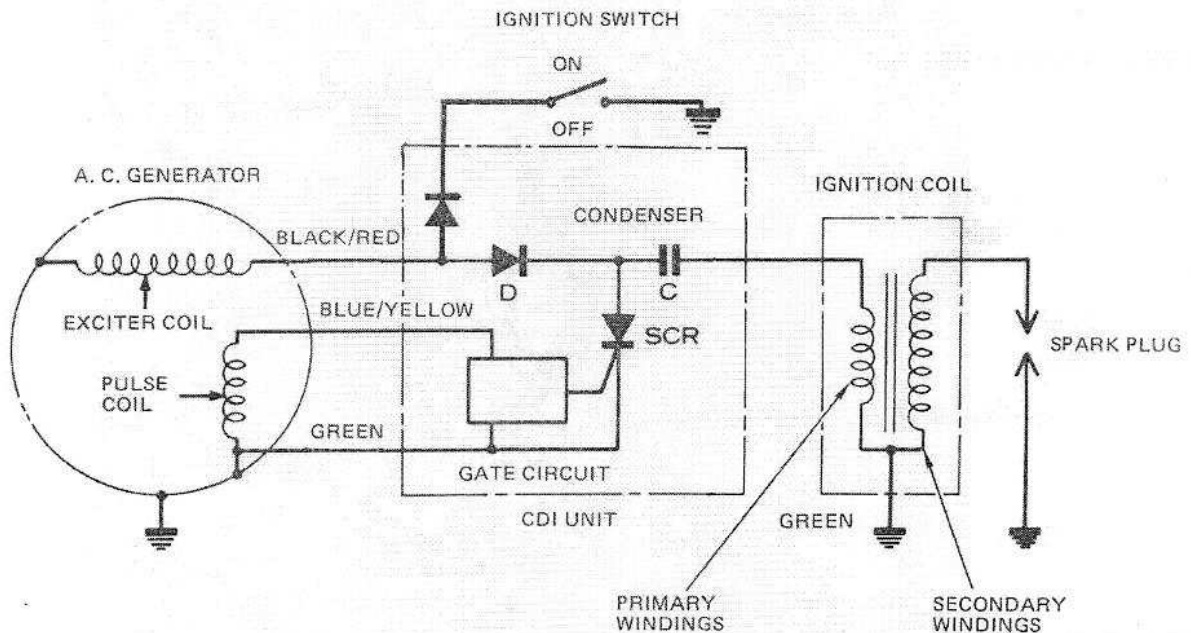
1. CAPACITOR DISCHARGE IGNITION

• Component Location



• Advantages of CDI

1. CDI gives a strong spark at high rpm and resists spark plug fouling at low rpm.
2. The CDI system does not require adjustment; it has no wearing parts.
3. The NC/NA50 ignition systems uses A.C. voltage.



OPERATION

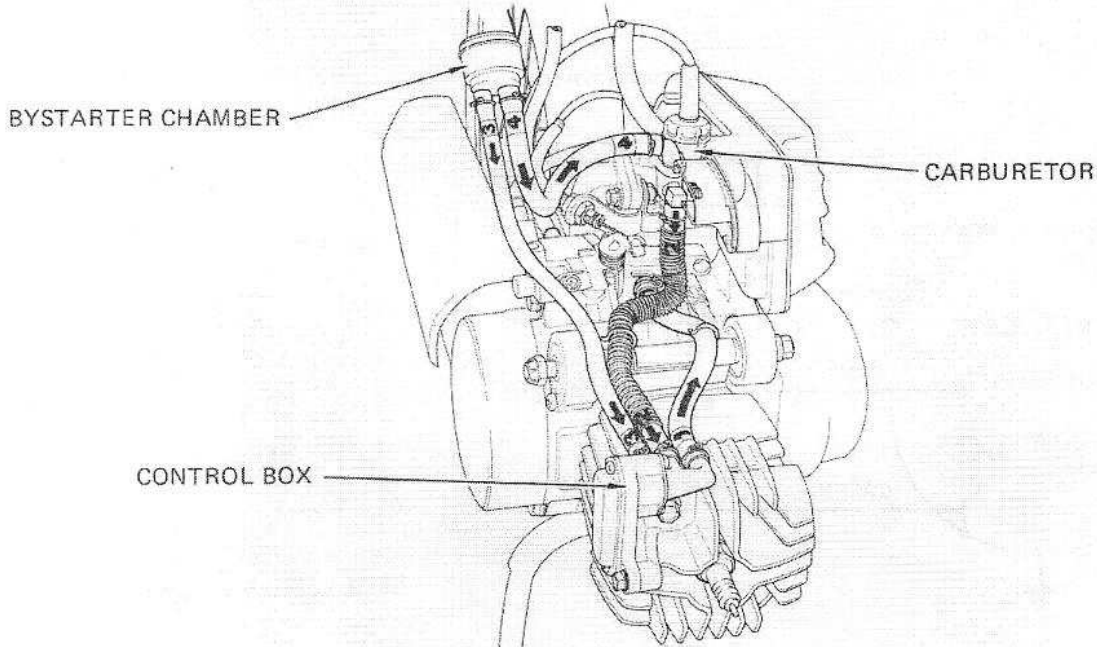
A.C. voltage is induced when the rotor magnets pass the exciter coil. The positive half of the A.C. wave passes through the CDI unit diode D to charge the condenser C. The condenser cannot discharge through the magneto because the diode allows current to pass in one direction only.

Alternating current induced in the pulse coil is used to open and close the CDI units electronic switch (SCR) through the gate circuit (the SCR and gate circuit are more complex than shown). The magneto charges the condenser with the SCR open. The condenser is grounded through the SCR when the SCR closes. The condenser then discharges through the ignition coil primary windings, causing a rapid magnetic field build up. High voltage is then induced in the coil's secondary windings which flows through the spark plug and causes the spark.



2. AUTOMATIC CHOKE

An automatic choke enriches the fuel mixture for cold engine starting. The choke system has a bystarter chamber and a control box.

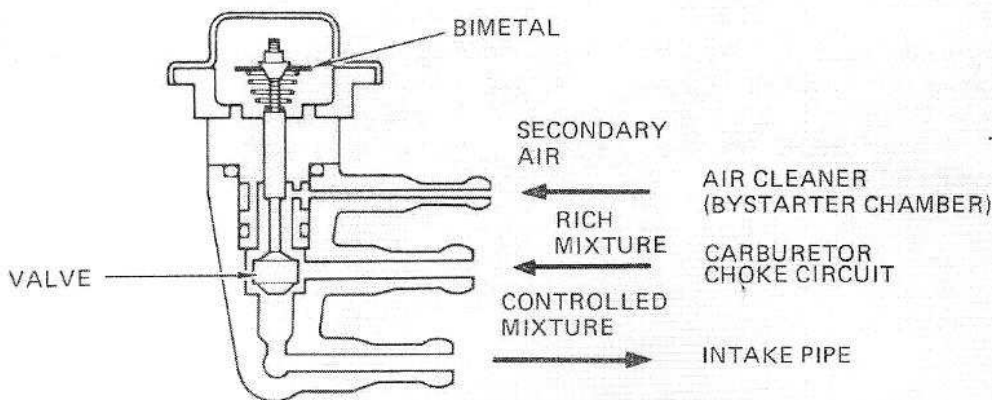


BYSTARTER CHAMBER

The bystarter chamber is like an air cleaner box except it supplies air to the carburetor choke circuit and to the control box.

CONTROL BOX

The control box has three control lines connected to it; (1) an air line from the bystarter, (2) a fuel line from the carburetor choke circuit, and (3) a fuel line to the intake pipe. The flow of air and fuel through these lines is controlled by a bimetal and valve inside the control box.



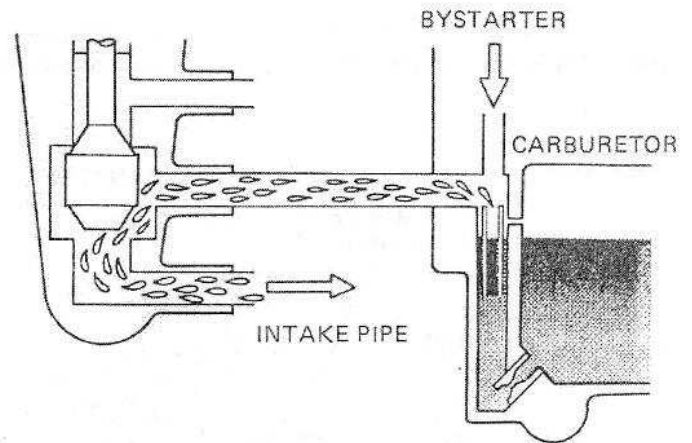


OPERATION

This how the automatic choke system works.

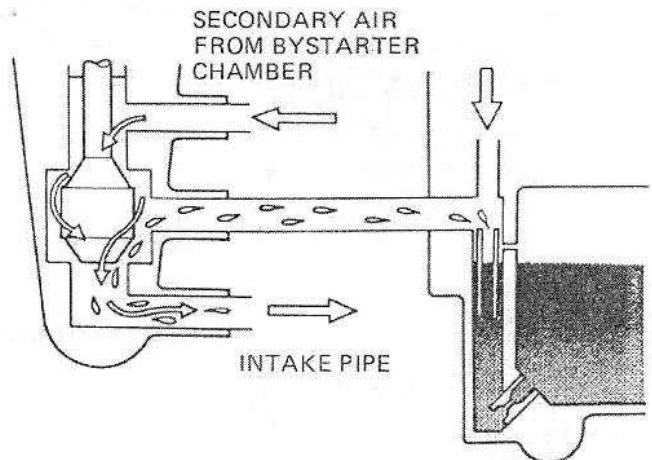
BELOW 10° C (50° F)

With engine temperature below 10° C (50° F), the control box bimetal valve holds the valve up so air directly from the bystarter is blocked. When the engine is started, air from the bystarter to the carburetor choke circuit draws and mixes with fuel, then flows through the control box and to the intake pipe. This richens the engine's air-fuel mixture.



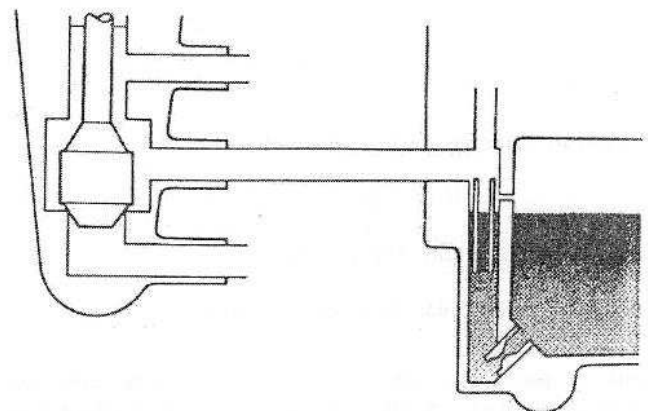
BETWEEN 10° C (50° F) and 46° C (115° F)

The bimetal bends and moves the control valve as it is heated by the engine. The valve moves 0.05 mm for each one degree centigrade (1.8° F) change in engine temperature. As the valve moves, it opens the air passage directly from the bystarter. This air mixes with the carburetor choke circuit mixture and slowly leans it out to keep the engine running smoothly.



ABOVE 46° C (115° F)

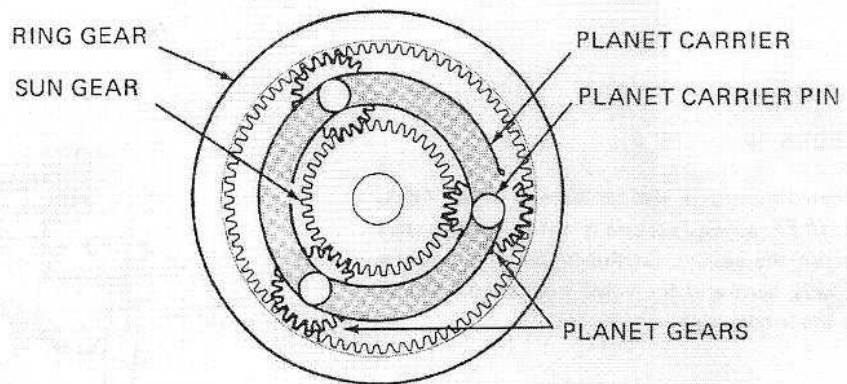
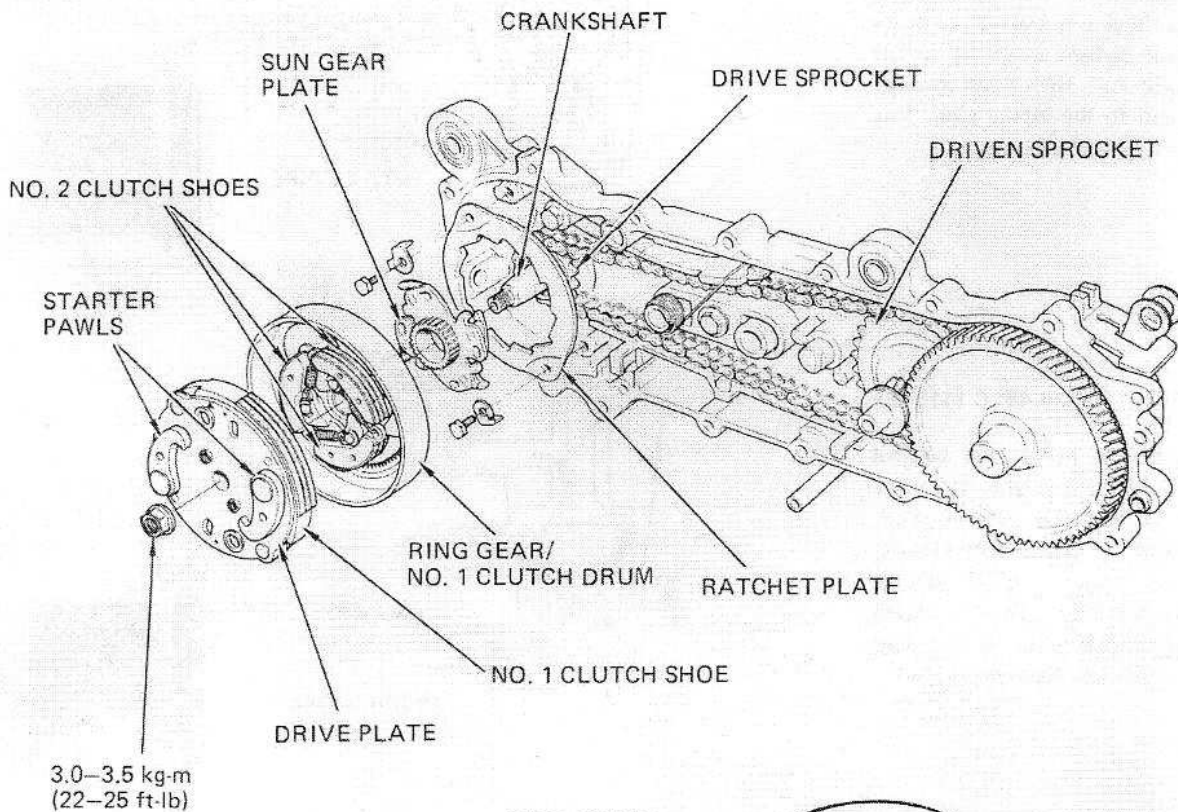
When the engine temperature is above 46° C (115° F), a rich mixture is not needed to start or run the engine. So the control box bimetal is fully bent and the valve blocks the fuel line to the intake pipe.





3. NA50 TWO-SPEED AUTOMATIC TRANSMISSION

The NA50 transmission is a compact combination of two centrifugal clutches, a ratcheting one-way clutch, and a planetary gearset. The whole unit spins, on a common axis with the crankshaft.



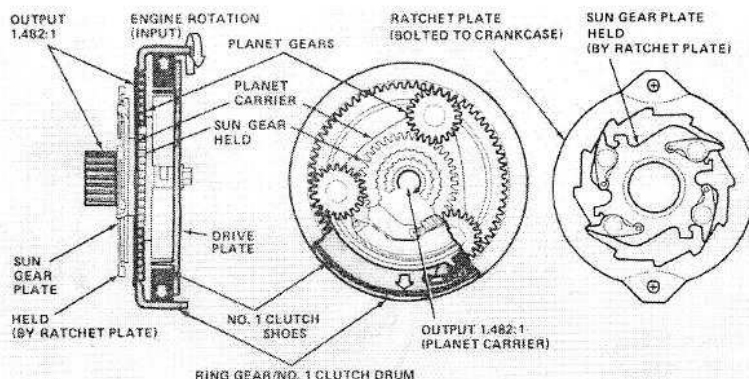
The gearset has three main components:

- The sun gear (in the center).
- The ring gear (around the outside).
- The planet gears/planet carrier assembly.

Planetary gears are simple, compact, durable and extremely versatile. A single gearset can perform a number of different torque multiplication tasks; holding different parts of the gearset stationary, or locking different parts together can change the behavior of the unit.



HOW THE TRANSMISSION WORKS IN 1ST GEAR



At idle, neither centrifugal clutch is engaged; the *drive plate*, bolted solidly to the crankshaft, is allowed to spin freely inside the *No. 1 clutch drum/ring gear*. As engine speed rises to 2600 rpm the *No. 1 clutch shoes* on the drive plate move outward against their springs. They contact the inside face of the *No. 1 clutch drum/ring gear*, forcing it to rotate at engine speed.

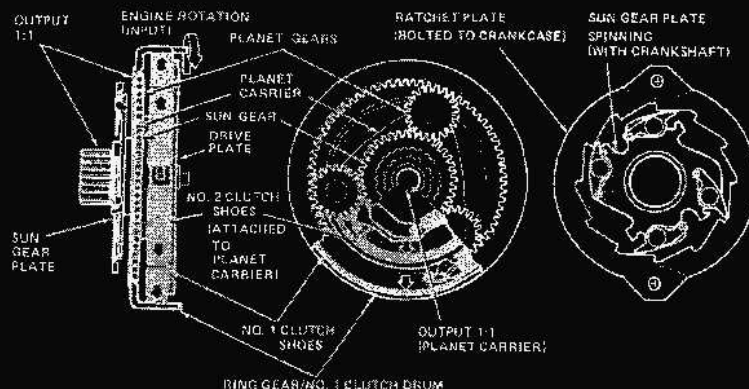
This forces the *planet gears* to walk around the sun gear which in turn, tries to rotate in the opposite direction of the ring

The *sun gear plate*, which is firmly splined to the sun gear, has four spring-loaded ratchet teeth. These engage with the rubber-covered *ratchet plate*, bolted to the crankcase, and prevent the sun gear from rotating backwards.

This puts the planetary set into the basic reduction mode, with the sun gear motionless. The planet carrier rotates, with reduced speed and multiplied torque, around the sun gear.

The *drive sprocket*, splined to the *planet carrier*, drives the rear wheel through a chain and separate gear pair in the rear of the chaincase.

HOW THE TRANSMISSION WORKS IN 2ND GEAR



At a ground speed of 20 - 25 kph (12 - 13 mph) the *No. 2 clutch*, rigidly attached to the planet carrier (and output shaft), engages the inside face of the drive plate. This locks the ring gear and the planet carrier together.

Locking any two members of a planetary set automatically locks the third with them. The ring gear and planet carrier are now turning at engine speed; the sun gear must go with them.

In 1st gear the sun gear tried to spin *opposite* engine rotation; its ratchet teeth and the ratchet plate stopped it. Now it is forced to spin *with* engine rotation, and the ratchet teeth on the sun gear plate fold to let it do so.

With the entire transmission unit locked, the drive sprocket, splined to the planet carrier, spins directly with engine rotation. Power is transmitted to the rear wheel as it was in 1st gear.

4. INSPECTION/ADJUSTMENT

IGNITION TIMING

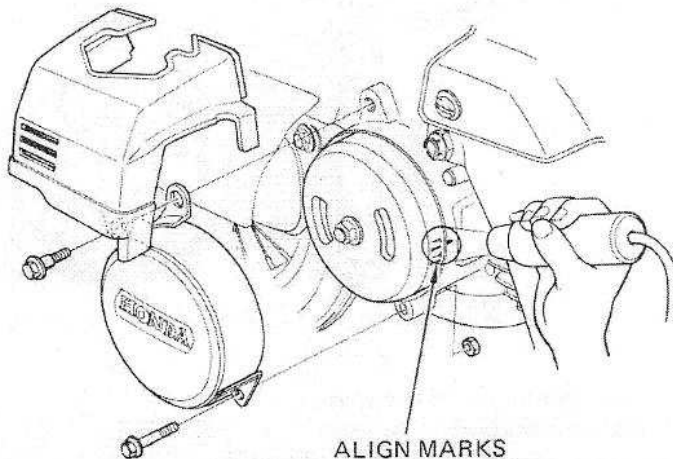
Ignition timing is correct if the index mark aligns with the "F" mark ($\pm 3^\circ$) at 2,000 rpm.

NOTE

Use the HONDA GENUINE SERVICE TESTER (07308-0070000) to check the ignition timing.

The ignition timing is not adjustable.

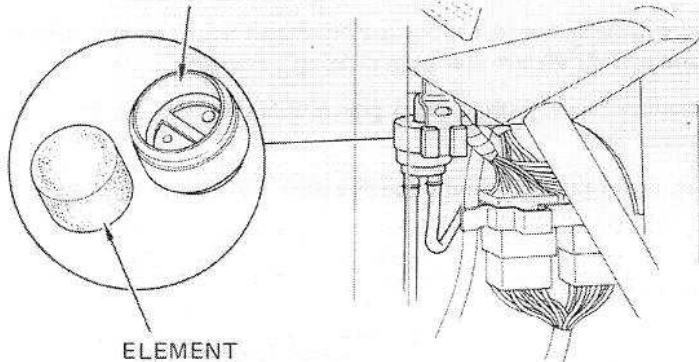
If the ignition timing is incorrect, check the CDI unit or A.C. generator and replace any faulty parts.



ALIGN MARKS

BYSTARTER ELEMENT CLEANING

BYSTARTER CHAMBER



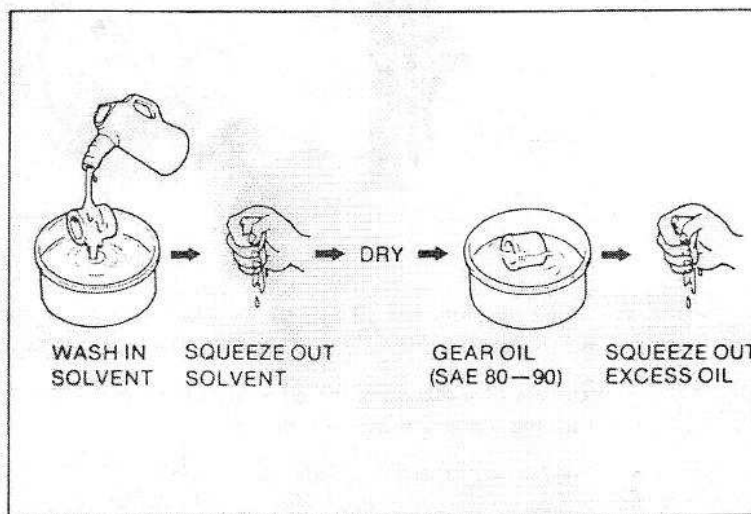
ELEMENT

Remove the element from the bystarter chamber.

Wash the element in non-flammable or high flash point solvent, squeeze out the solvent thoroughly, and allow to dry.

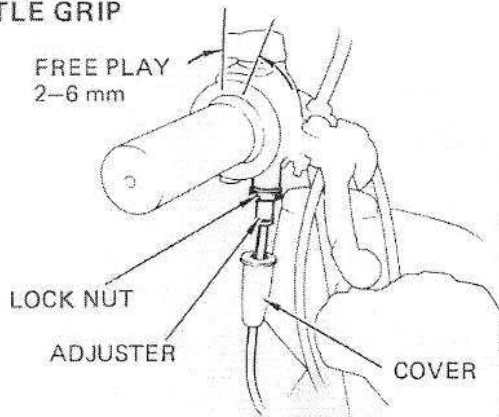
Soak the element in gear oil (SAE 80-90) and squeeze out excess.

Install the element.





THROTTLE GRIP



Adjust throttle grip free play as follows:

Pull the adjuster cover off.

Loosen the lock nut and turn the adjuster to obtain 2-6 mm (1/8-1/4 in) of free play at the grip flange.

Adjust the oil pump cable.

OIL PUMP CABLE

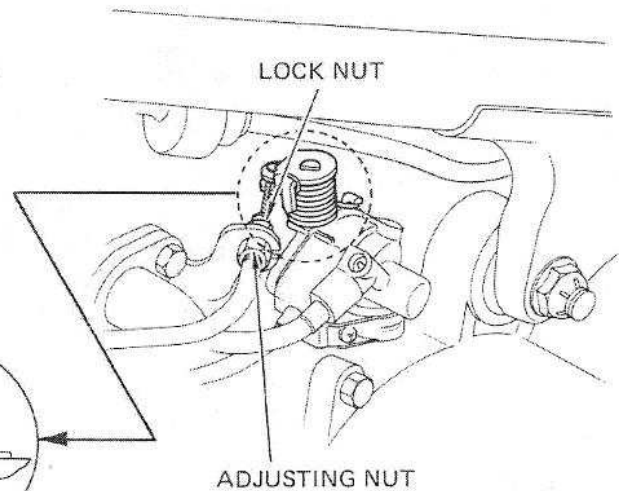
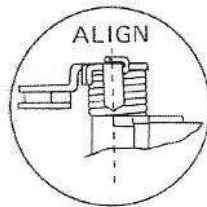
NOTE

- Excessive exhaust smoking can be caused by incorrect oil pump cable adjustment.
- Adjust the oil pump cable after adjusting throttle grip free play.

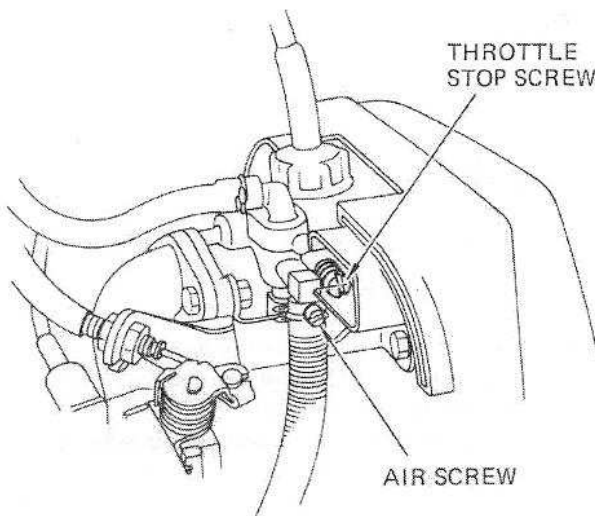
Close the throttle grip.

Check that the oil pump body projection and control lever pointer align. If not, adjust:

- Loosen the adjuster lock nut and turn the adjusting nut as required.
- Tighten the lock nut.



IDLE SPEED



NOTE

The engine must be warm for accurate idle speed adjustment.

Attach a tachometer.

Turn the throttle stop screw to obtain an idle speed of 1,800 rpm. If the engine misses or runs erratic when the throttle grip is operated, do the following:

Screw the air screw in until it lightly seats, then turn it out 1 full turn.

Reset the idle speed with the throttle stop screw.

Turn the air screw in or out to obtain the highest idle speed.

Reset the idle speed with the throttle stop screw.

Make sure that the engine does not miss or run rough. If necessary, repeat steps 2 through 4.



OIL PUMP BLEEDING/PRIMING

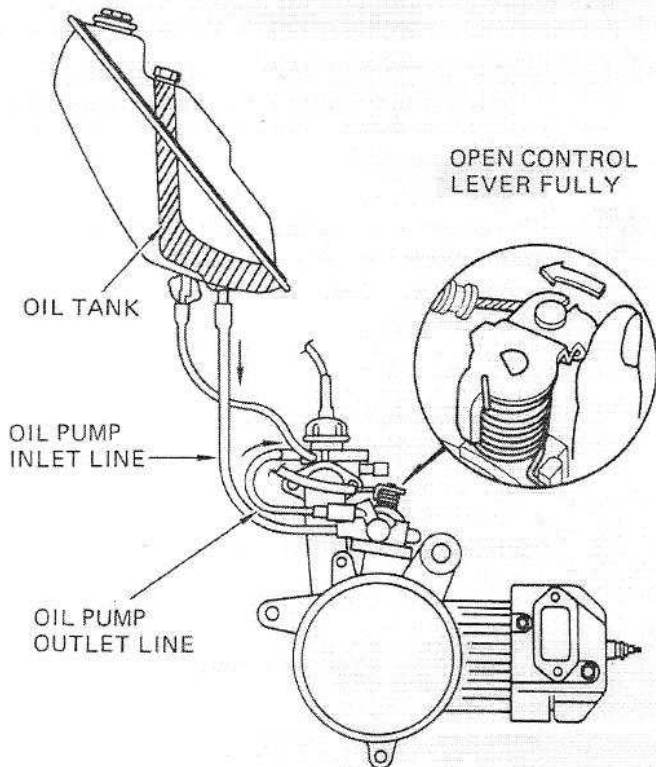
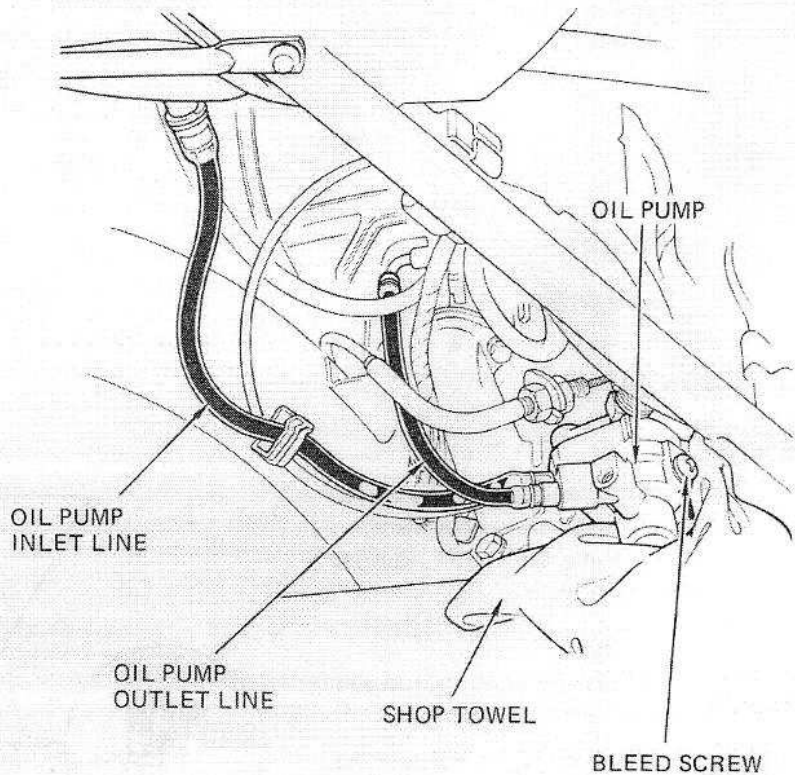
NOTE

Bleed the oil pump inlet line when it has been removed from the oil pump or if it contains air bubbles.

Fill the oil tank with two-stroke injector oil, SAE 30W.

Place a shop towel under the bleed screw.

Bleed the oil pump inlet line by loosening the bleed screw. Allow oil to run out until the oil line is free of air bubbles, then tighten the screw.



Prime the oil pump outlet line as follows:

Start the engine and let it idle.

Hold the oil pump control lever full open by hand and check for air bubbles in the oil line to the carburetor.

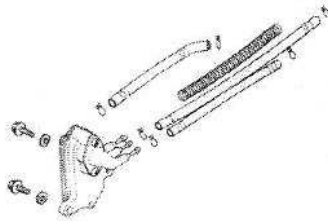
Hold the pump open until all air bubbles are gone.



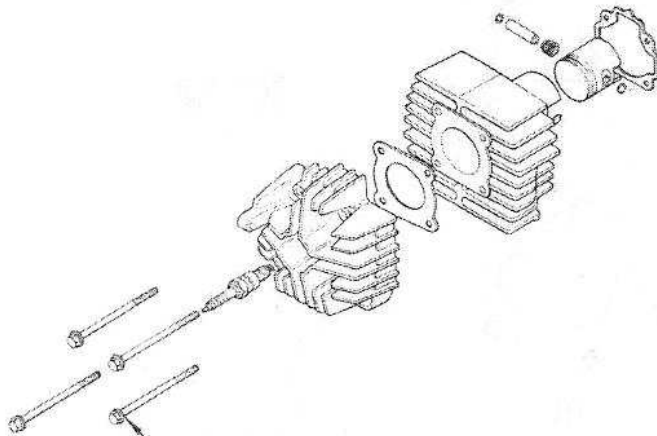
5. CYLINDER HEAD/ CYLINDER/PISTON

CONTROL BOX

Do not disassemble the control box assembly.

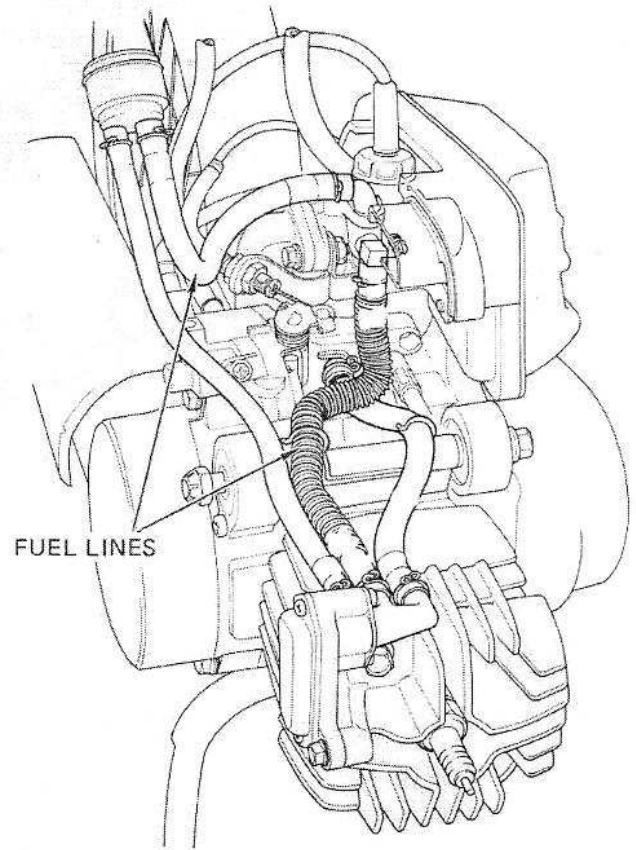


Clean the cylinder and control box mating surfaces before assembly.



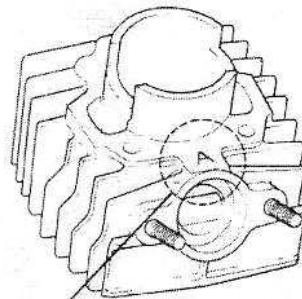
0.8—1.2 kg-m
(5.8—8.7 ft-lb)

FUEL LINES ROUTING



CYLINDER REPLACEMENT

Replace the cylinder with one that has the same A or B letter code at the exhaust part.



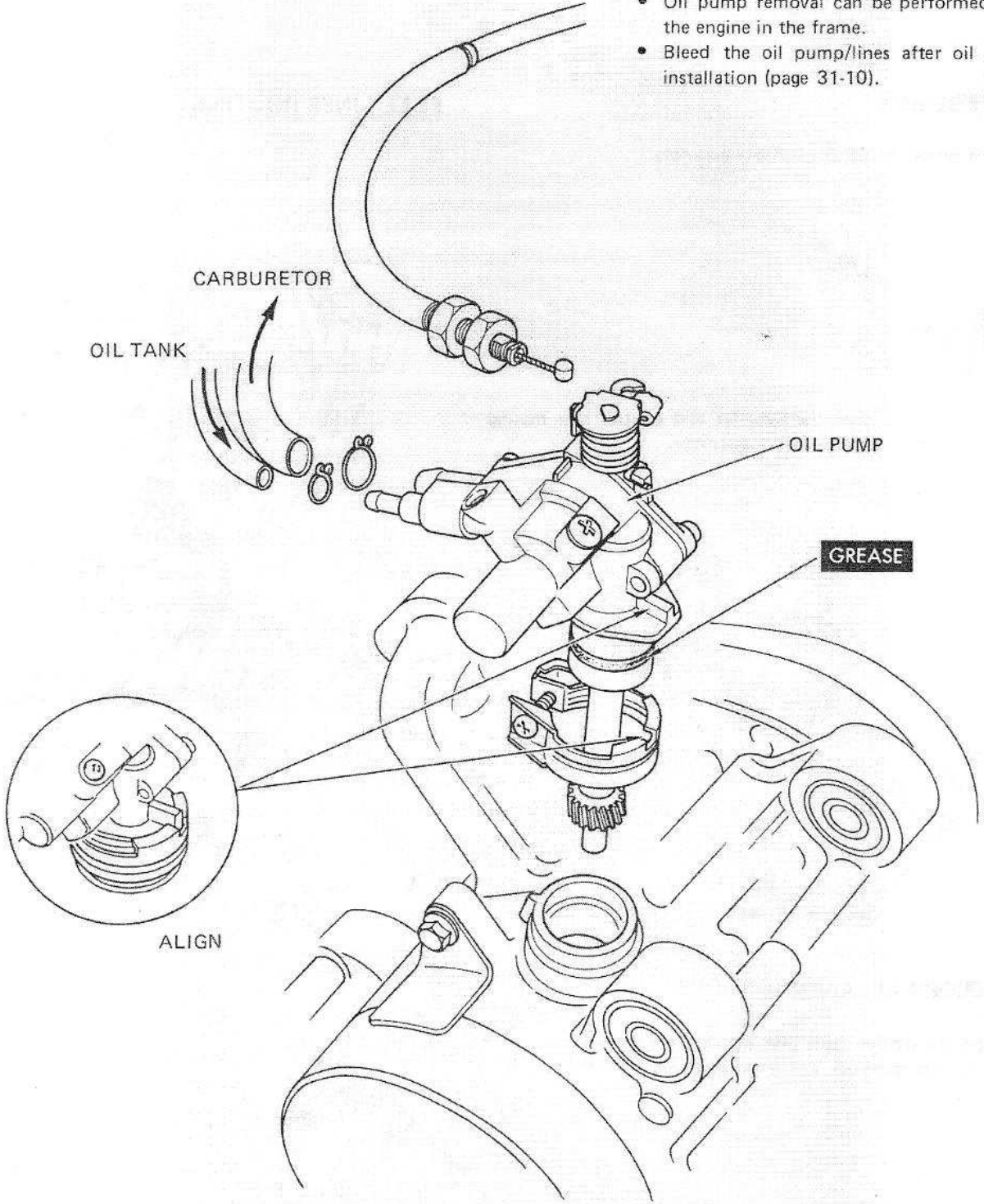
A or B



6. OIL PUMP

NOTE

- Oil pump removal can be performed with the engine in the frame.
- Bleed the oil pump/lines after oil pump installation (page 31-10).





7. A.C. GENERATOR

② FLYWHEEL

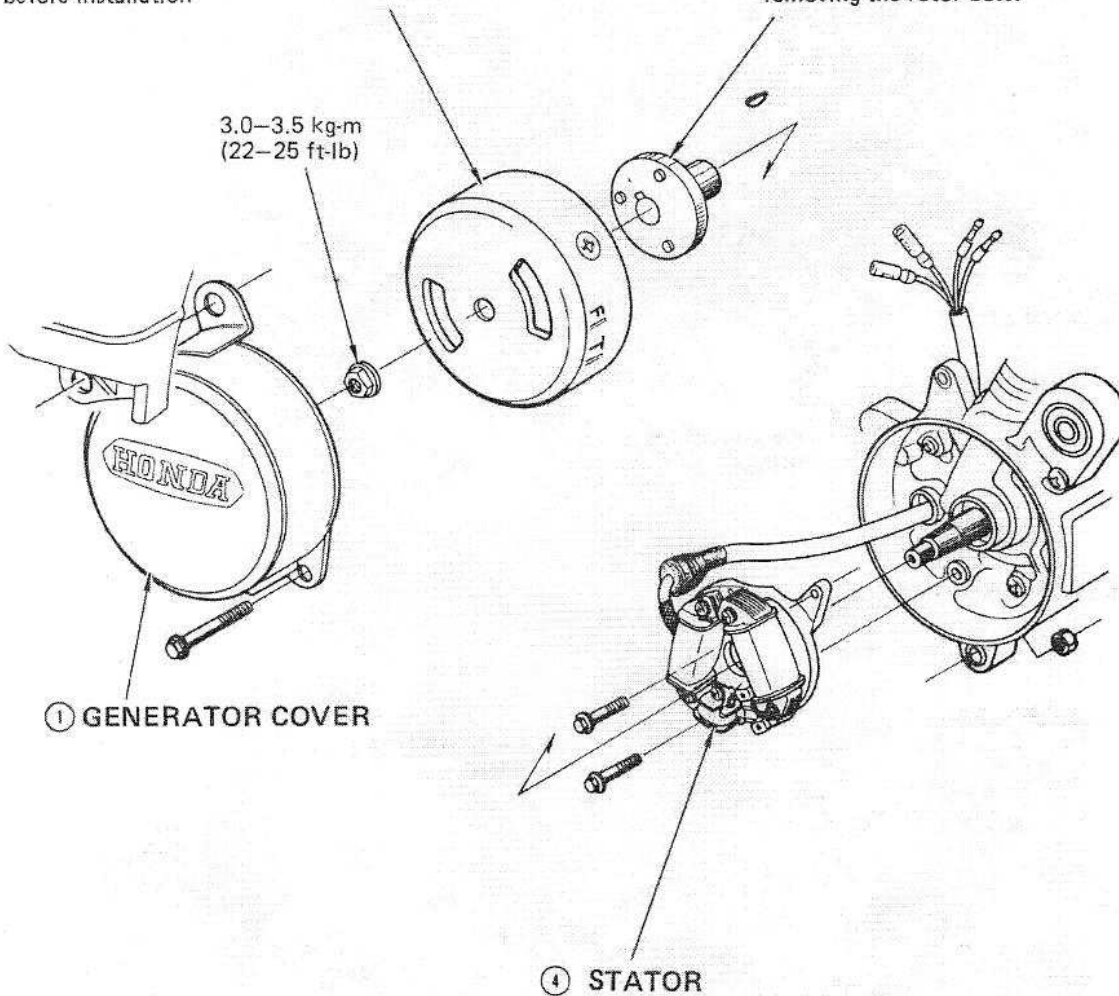
NOTE

Remove any metal filings from the flywheel before installation

③ ROTOR BOSS

CAUTION

Do not damage the generator windings when removing the rotor boss.



① GENERATOR COVER

④ STATOR

NOTE

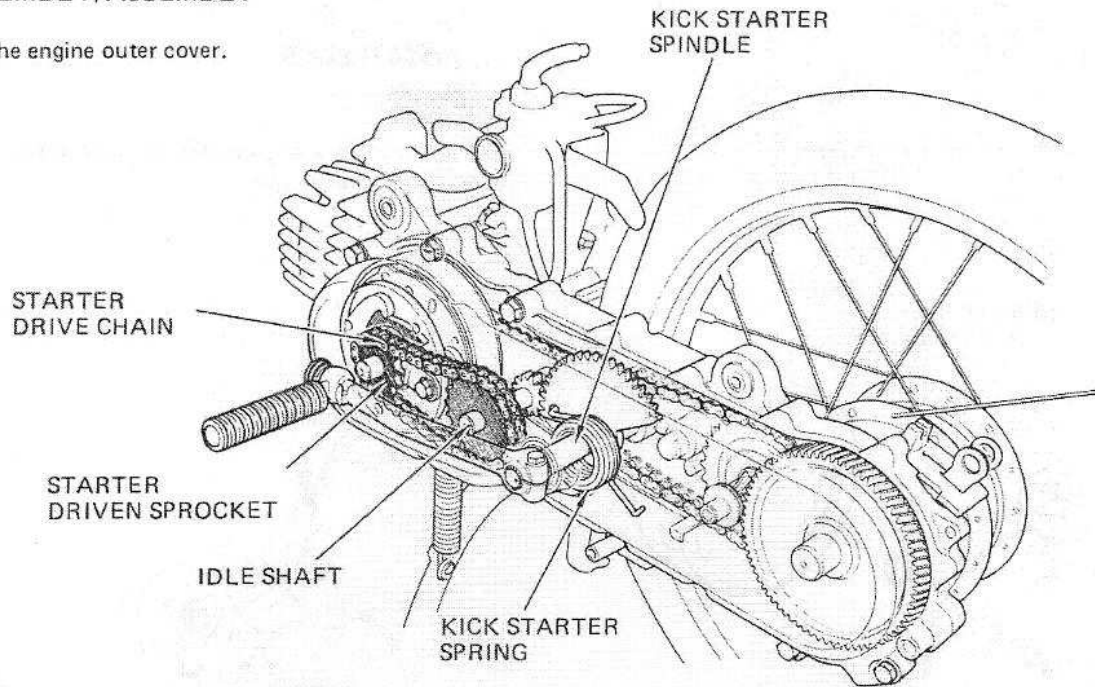
Install the stator assembly, routing the wires through the case.



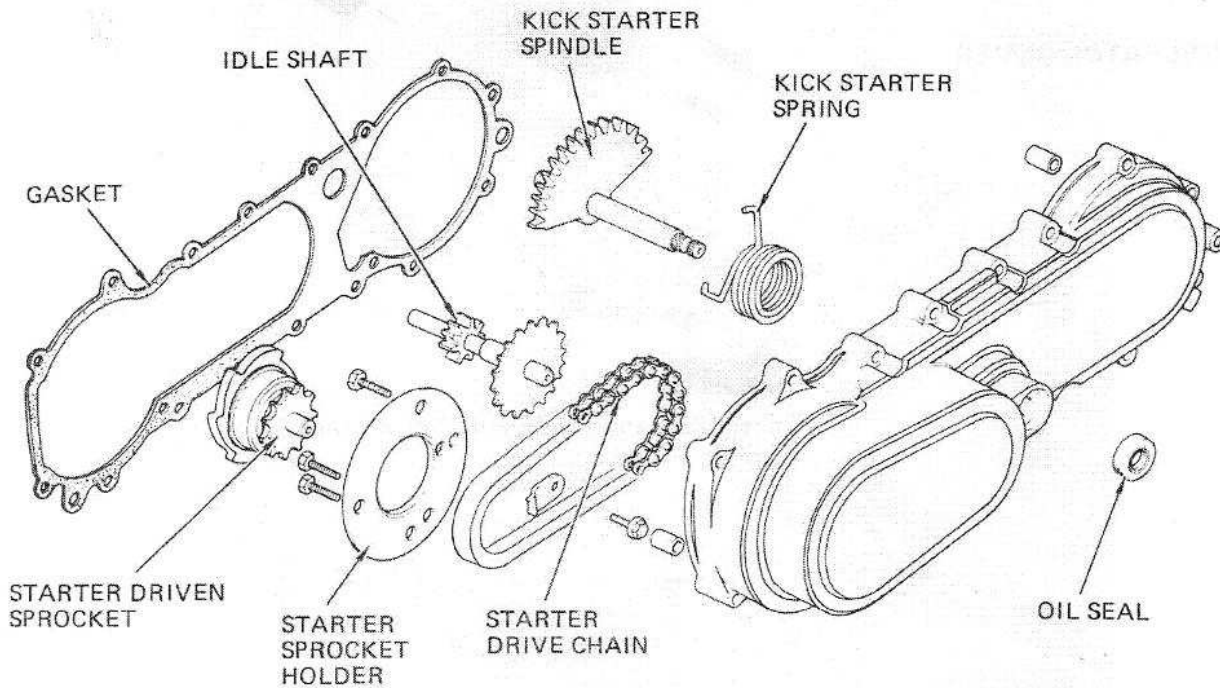
8. KICK STARTER

DISASSEMBLY/ASSEMBLY

Remove the engine outer cover.



Remove the kick starter components from the outer cover.





Install the kick starter spindle into the outer cover, while positioning the kick starter spring into place.

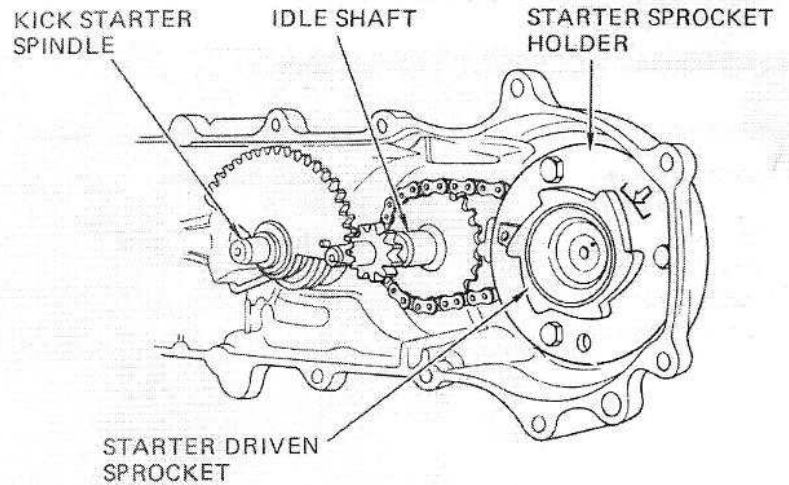
Install the kick starter pedal onto the spindle.

Install the outer cover assembly with a new gasket.

Fill the case with the recommended type and quantity of oil.

TYPE: Above 5° C (41° F), SAE 10W-40
Below 5° C (41° F), SAE 5W-30

Quantity: After draining, 400 cc (14 oz)
After disassembly, 600 cc (20 oz)

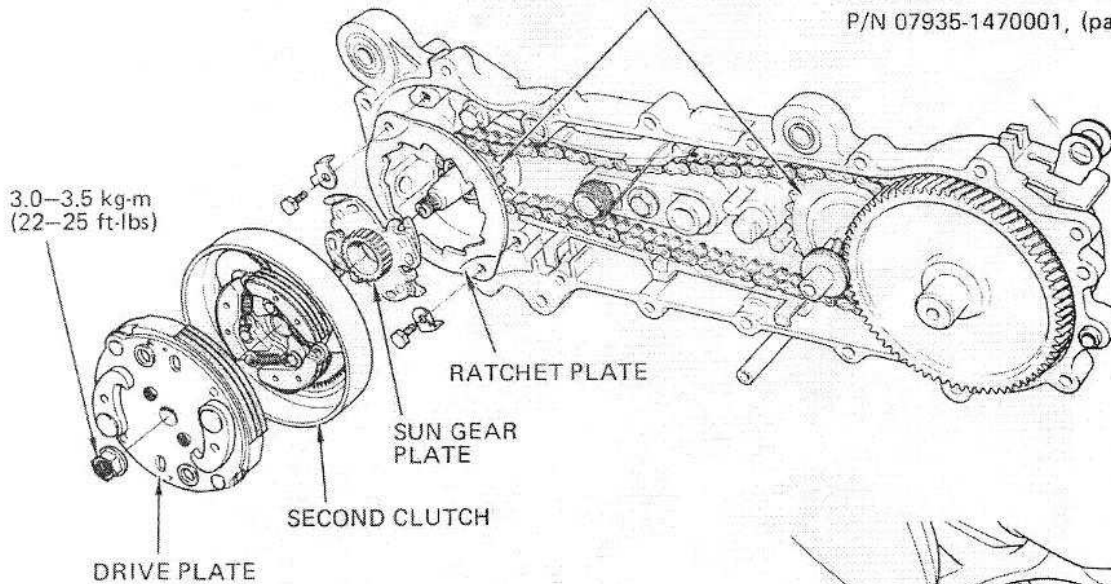


9. CLUTCH

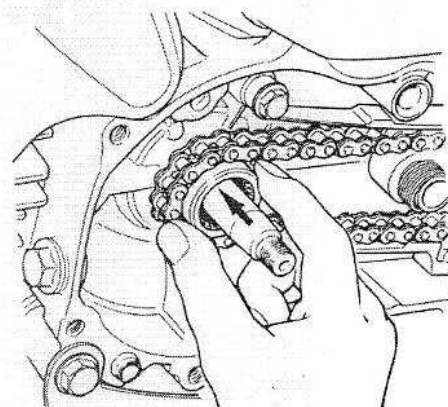
DISASSEMBLY/ASSEMBLY

DRIVE SPROCKET •
DRIVEN SPROCKET

Remove the engine left outer cover and clutch nut. Remove the clutch using the clutch puller, P/N 07935-1470001, (page 31-21).



Assembly is the reverse of removal. Be sure to push the drive sprocket onto the crankshaft securely.





10. ELECTRICAL

ELECTRICAL ACCESSORY LOCATIONS

1. IGNITION SYSTEM

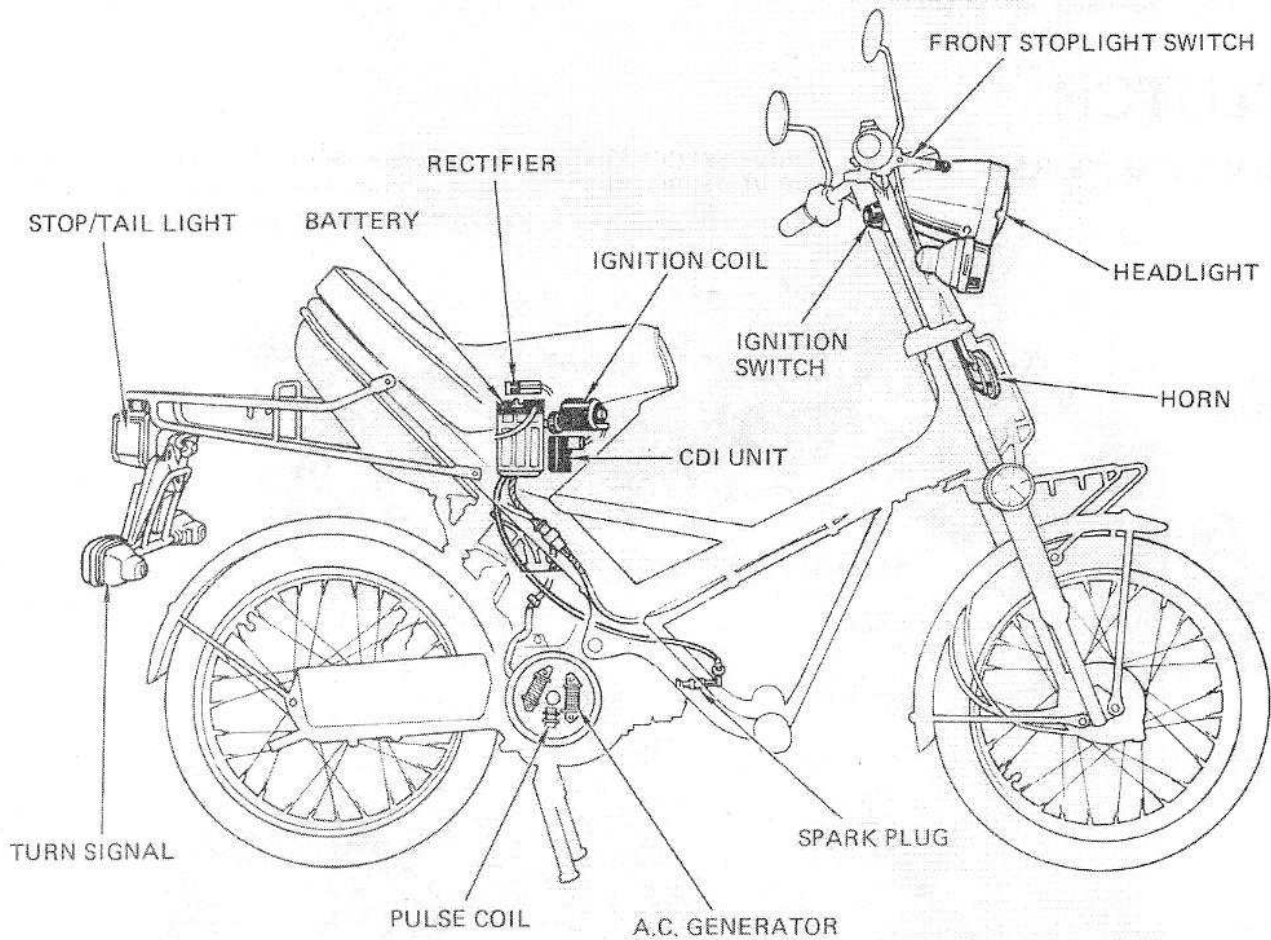
- IGNITION COIL
- A. C. GENERATOR
- CDI UNIT
- SPARK PLUG
- PULSE COIL
- IGNITION SWITCH

2. BATTERY/CHARGING SYSTEM

- A. C. GENERATOR
- RECTIFIER
- BATTERY

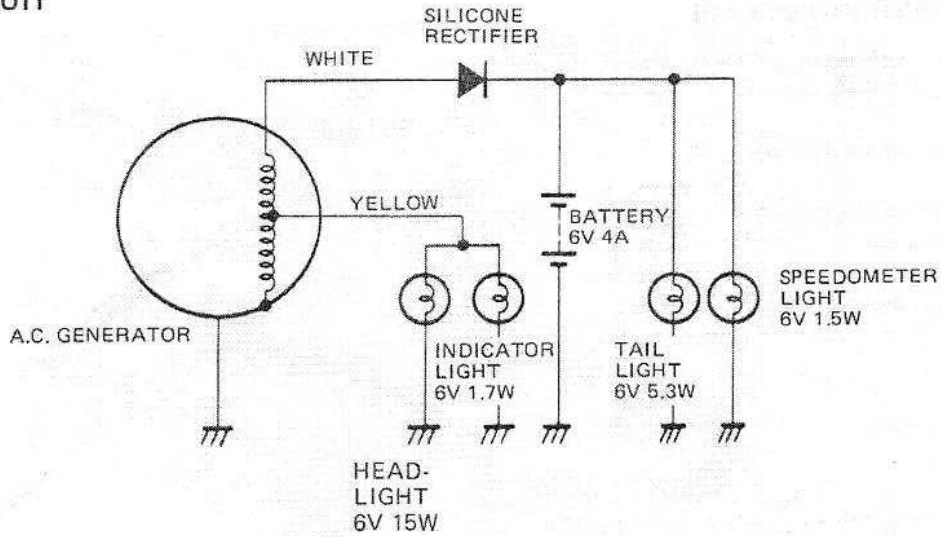
3. LIGHTING SYSTEM AND HORN

- HEADLIGHT
- STOP/TAILLIGHT
- HORN
- TURN SIGNAL

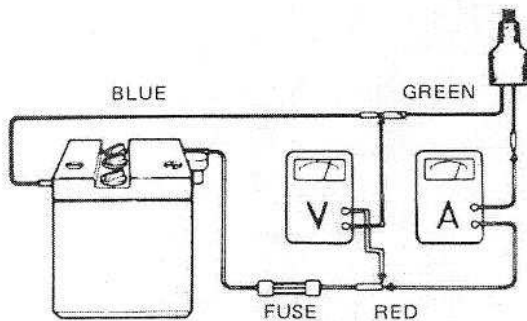




CHARGING CIRCUIT



PERFORMANCE TEST



Warm up the engine before taking readings.

Use a fully charged battery to check the charging system output.

BATTERY SPECIFIC GRAVITY:
1.260-1.280 (20° C)

Connect a voltmeter and an ammeter as shown.

NOTE

Raise the engine speed gradually observing the meter readings.

Charging Starts	4,000 rpm	6,000 rpm
2,000 rpm max, (7.0V)	0.7A min, (8.5V)	2.0A max, (8.7V)

Check the battery, A.C. generator and resistor when the readings do not match the given specifications.



A. C. GENERATOR INSPECTION

Unplug the stator connector and measure the resistances between the leads with an ohmmeter.

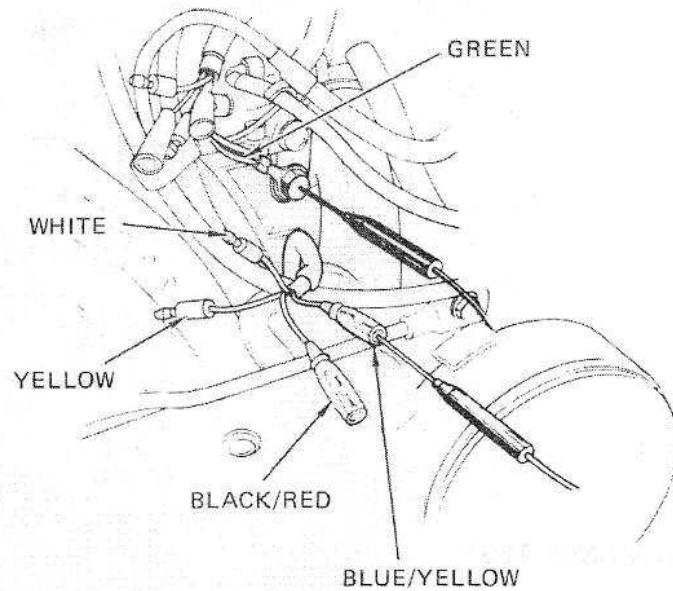
Set the ohmmeter to the RX1 scale.

(X1 Ω)

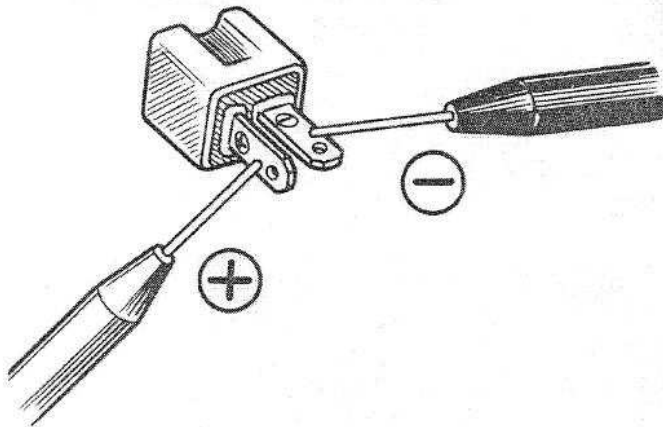
White and engine ground	0.1 – 1.0 Ω
Yellow and engine ground	0.3 – 1.5 Ω
Blue/Yellow and engine ground	10 – 100 Ω
Black/Red and engine ground	50 – 300 Ω

NOTE

Replace the stator coil and flywheel as a set. Do not replace one without replacing the other.



RECTIFIER INSPECTION



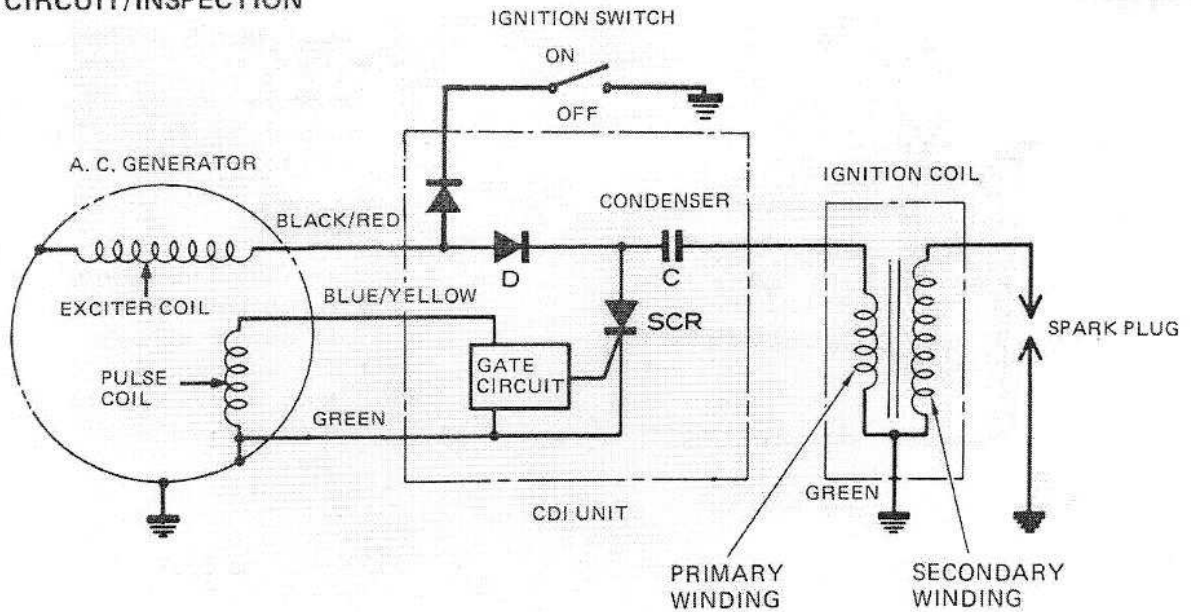
Check the rectifier with an ohmmeter, reversing the test leads once.

There should be continuity in one direction and no continuity in the other direction.

Replace the rectifier if there is continuity in both directions or if there is no continuity in both directions.



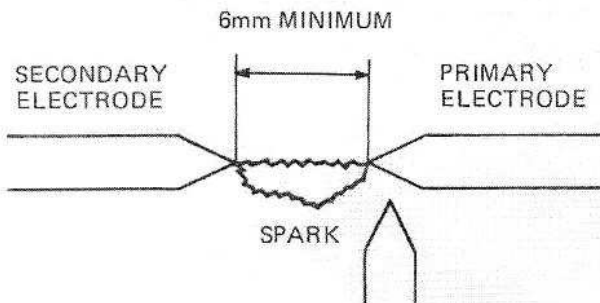
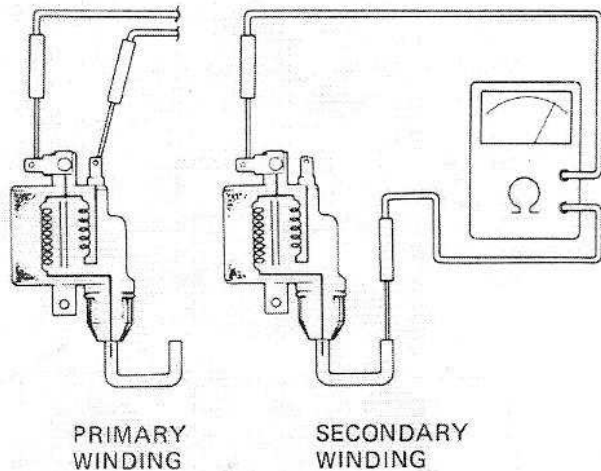
IGNITION CIRCUIT/INSPECTION



IGNITION COIL

Check the primary and secondary windings for continuity between the leads with an ohmmeter.

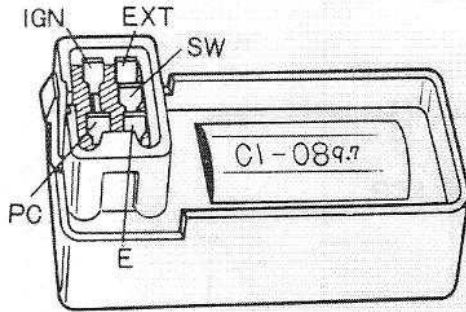
RESISTANCES	
Primary	0.2 - 0.3 Ω
Secondary	3.4 - 4.2k Ω



Perform a spark test with a service tester according to the tester manufacturer's instructions.

SERVICE LIMIT: 6 mm min.

CDI UNIT



Measure the resistances between the CDI unit terminals with an ohmmeter.

Replace the CDI unit with a new one if the readings do not fall within the limits shown in the table.

NOTE

- The CDI is a transistorized unit.
- A high quality ohmmeter is recommended for accurate test results.
- The test chart is for a positive ground tester, so you may have to reverse your tester leads to obtain the specification given.

Measuring units:

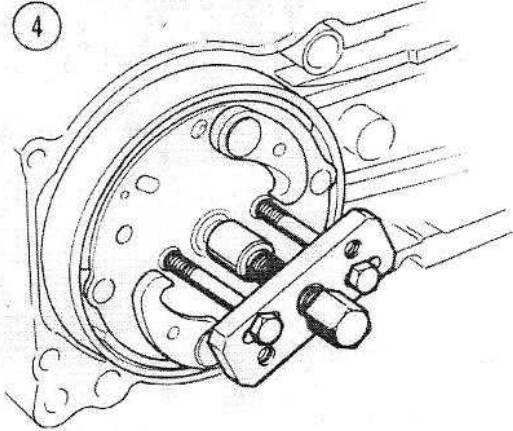
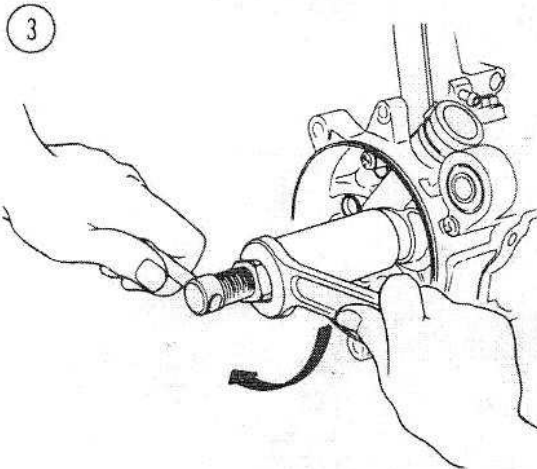
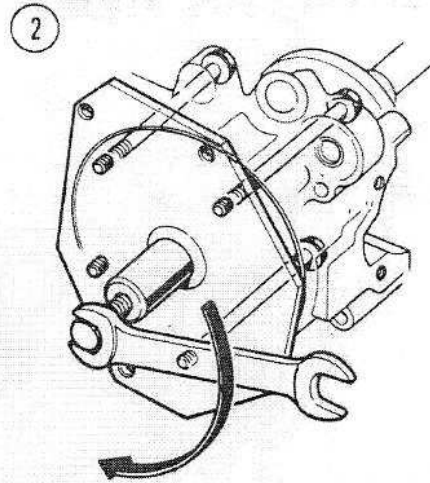
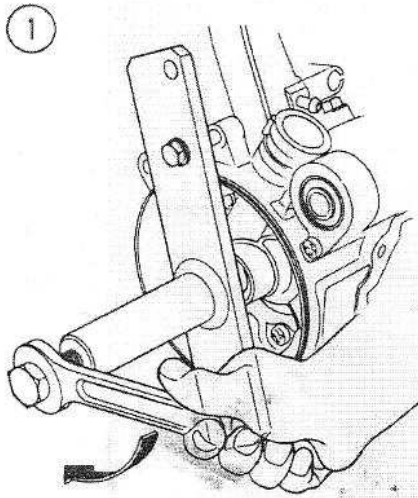
SANWA [SP-10D type] : Xk Ω

KOWA [TH-5H type] : X100 Ω

Tester \ominus / Tester \oplus	SW	EXT	PC	E	IGN
SW		∞	∞	∞	∞
EXT	0.1 – 10		∞	∞	Needle swings, then returns
PC	0.5 – 200	0.5 – 50		1 – 50	∞
E	0.2 – 30	0.1 – 10	∞		∞
IGN	∞	∞	∞	∞	



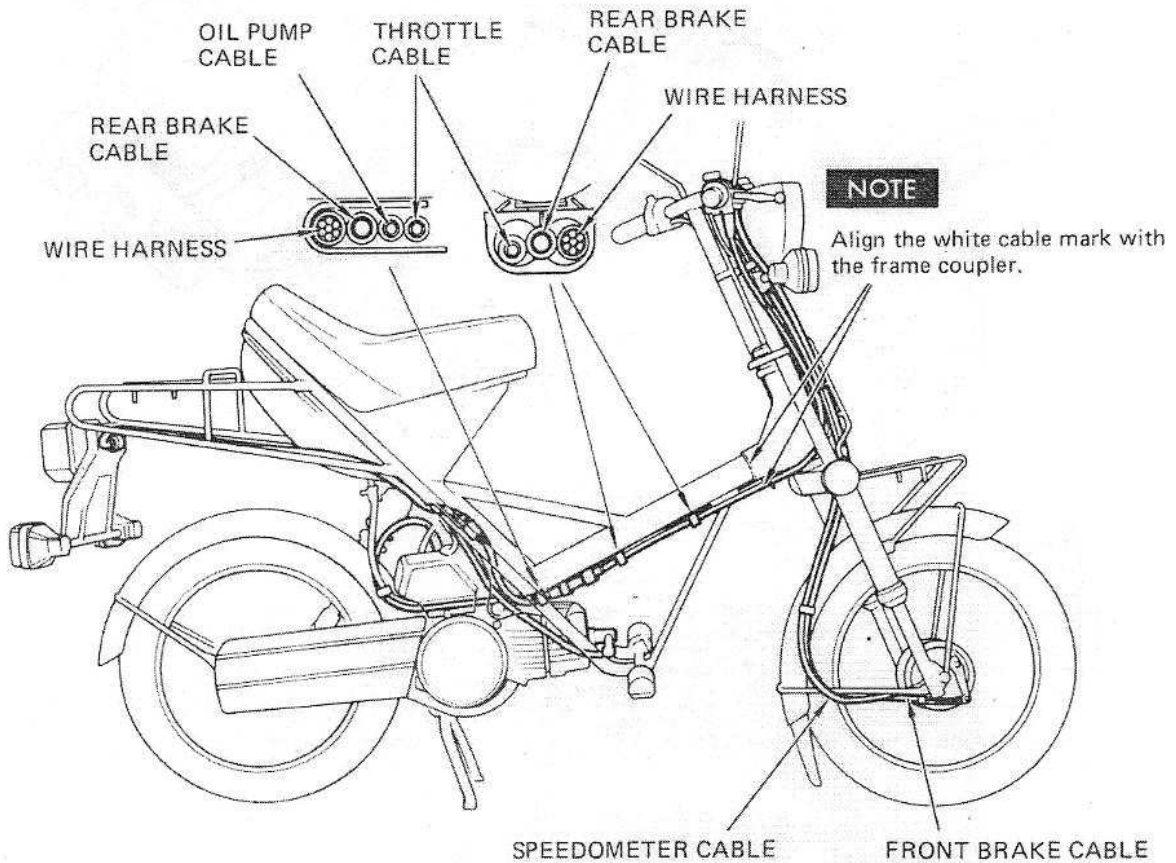
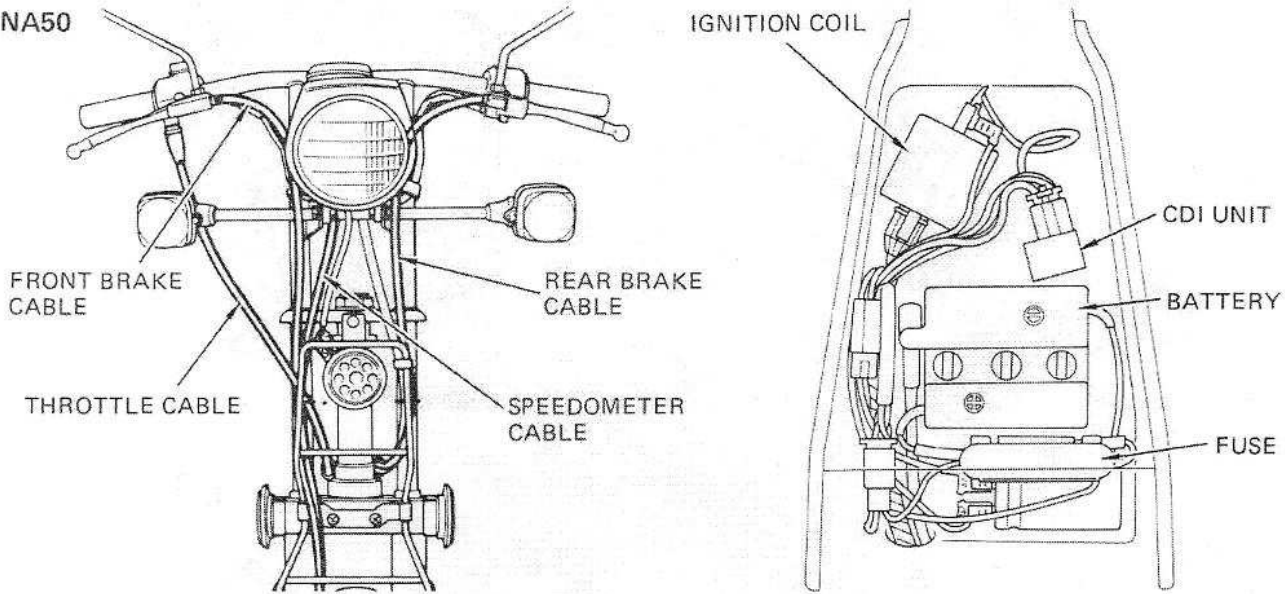
11. TOOLS



Ref. No.	Tool parts No.	Description	Remarks
①	07935 - 1870000	Case puller	Right crankcase disassembly
②	07933 - 1470000	Case puller	Left crankcase disassembly
③	07965 - 1480001	Oil seal assembling tool	Crankcase, crankshaft and oil seal assembly
④	07935 - 1470001	Clutch puller	Clutch drive plate removal

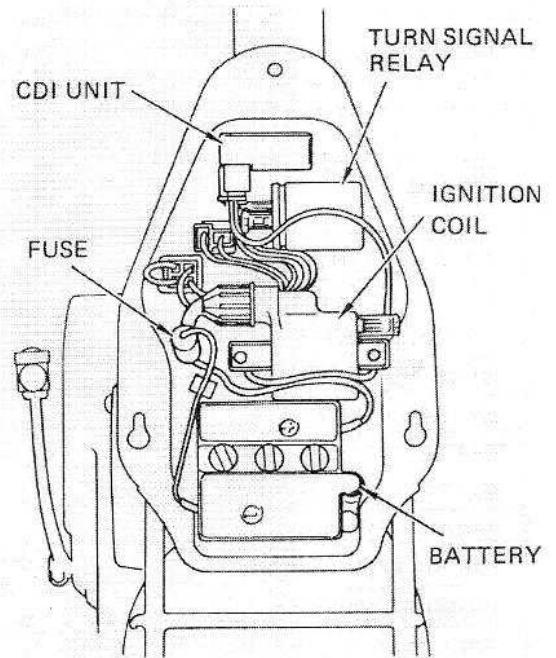
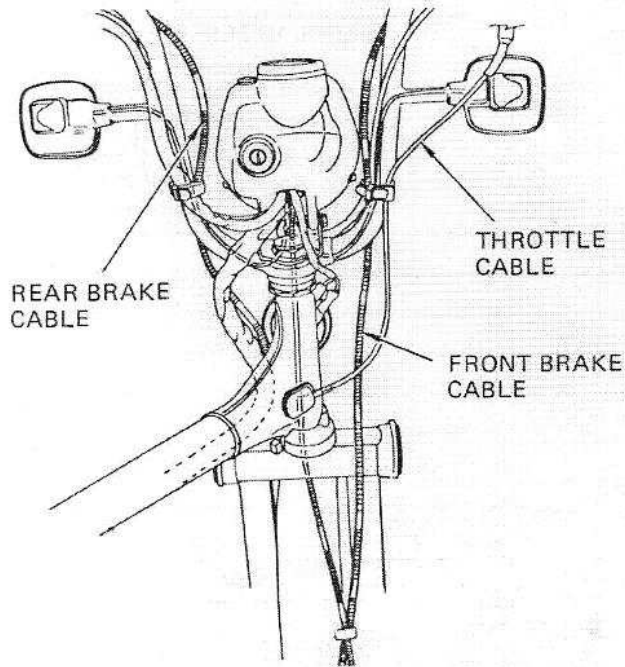
12. CABLE AND WIRE HARNESS ROUTING

• NA50

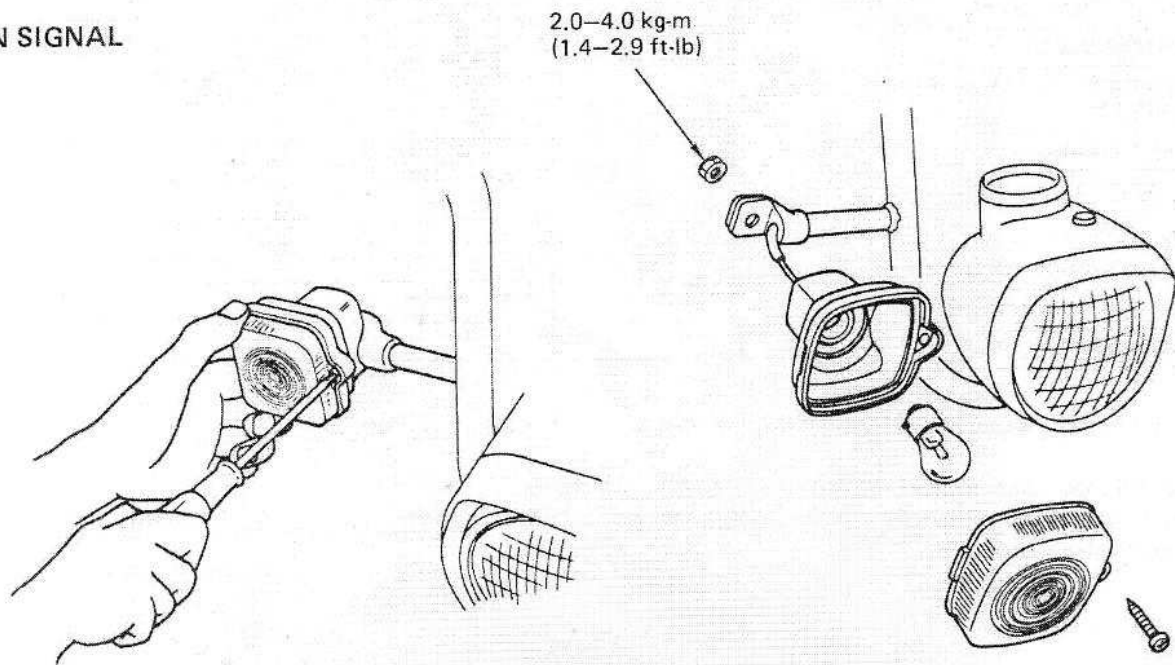




• NC50



TURN SIGNAL



Remove the turn signal lens screws and lens. When installing the turn signal lens, do not overtighten the lens screws to avoid cracking.



13. MAINTENANCE SCHEDULE

MAINTENANCE SCHEDULE This maintenance schedule is based upon average riding conditions. Machines subjected to severe use, or ridden in unusually dusty areas, require more frequent servicing.	PRE-RIDE INSPECTION	INITIAL SAFETY INSPECTION	REGULAR SERVICE Perform at every indicated month or mileage interval, whichever comes first.	
		1 month 200 miles 300 km	12 months 1,000 miles 1,500 km	24 months 2,000 miles 3,000 km
*TIRES AND PRESSURE	I			
*THROTTLE OPERATION	I	I	I	
WHEEL TRUENESS AND SPOKES		I	I	
NUTS, BOLTS (TIGHTEN)		I	I	
BRAKE LININGS			I	
*BATTERY FLUID LEVEL	I			
BATTERY FLUID SPECIFIC GRAVITY			I	
SPARK PLUG			R	
AIR FILTER ELEMENT		(EVERY 6 MONTHS) C		
CARBURETOR		I	I	
FUEL FILTER SCREEN		C	C	
SUSPENSION OPERATION			I	
CLUTCH SHOE WEAR				I
TRANSMISSION OIL				R
DECARBONIZE CYLINDER HEAD AND MUFFLER				C
*BRAKE OPERATION AND FREE PLAY	I	I	I	
*OIL AND FUEL LEVEL	I			
*ALL LIGHTS	I			
*TRANSMISSION CASE FOR LEAKS	I			
OIL PUMP ADJUSTMENT			I	
BYCHAMBER ELEMENT		I		

I-Inspect and clean, adjust, lubricate or replace if necessary R-Replace C-Clean

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



14. SPECIFICATIONS

NOTE: Specifications for the NC50 are the same as for the NA50 except as noted.

	NA 50	NC50
DIMENSIONS		
Overall length	1,660 mm (65.4 in)	1,580 mm (62.2 in)
Overall width	600 mm (23.6 in)	
Overall height	995 mm (39.2 in)	1,000 mm (39.4 in)
Wheel base	1,050 mm (41.3 in)	
Ground clearance	125 mm (4.9 in)	
Dry weight	52.5 kg (116 lb)	46.5 kg (102.5 lb)
FRAME		
Type	Back bone	
F. suspension	Telescopic fork	
R. suspension	Swing arm	
F. tire size, pressure	2.25 - 14 - 4PR 1.25kg/cm ² (18 psi)	1.5 kg/cm ² (21 psi)
R. tire size, pressure	2.25 - 14 - 4PR 2.25kg/cm ² (32 psi)	2.0 kg/cm ² (28 psi)
F. brake	Internal expanding shoes	
R. brake	Internal expanding shoes	
Fuel capacity	2.5 lit (0.65 U S gal)	2.0 lit (0.53 U S gal)
Fuel reserve capacity	0.5 lit (0.13 U S gal)	0.2 lit (0.05 U S gal)
Caster angle	23° 30'	23°
Trail length	76 mm (3.0 in)	72 mm (2.8 in)
Front fork grease	5 cc (0.18 ozs)	
ENGINE		
Type	Air cooled, 2-stroke	
Cylinder arrangement	Single-cylinder flat	
Bore and stroke	40 x 39.3 mm (1.57 x 1.55 in)	
Displacement	49cc (3.0 cu in)	
Compression ratio	7.3:1	
Transmission oil capacity	0.55 lit. (0.59 U S qt); SAE 10W-40 motor oil	
Oil tank capacity, NA50	0.9 lit. (0.95 U S qt); 2-stroke injector oil	SAE 30W
NC50	0.8 lit. (0.84 U S qt); 2-stroke injector oil	SAE 30W
Lubrication system	Forced	
Air screw opening	1 turn out	
Intake	Open	Reed valve controlled
	Close	Reed valve controlled
Exhaust	Open	65° BBDC
	Close	65° ABDC
Scavenge	Open	47° BBDC
	Close	47° ABDC
Idle speed	1,800 rpm	



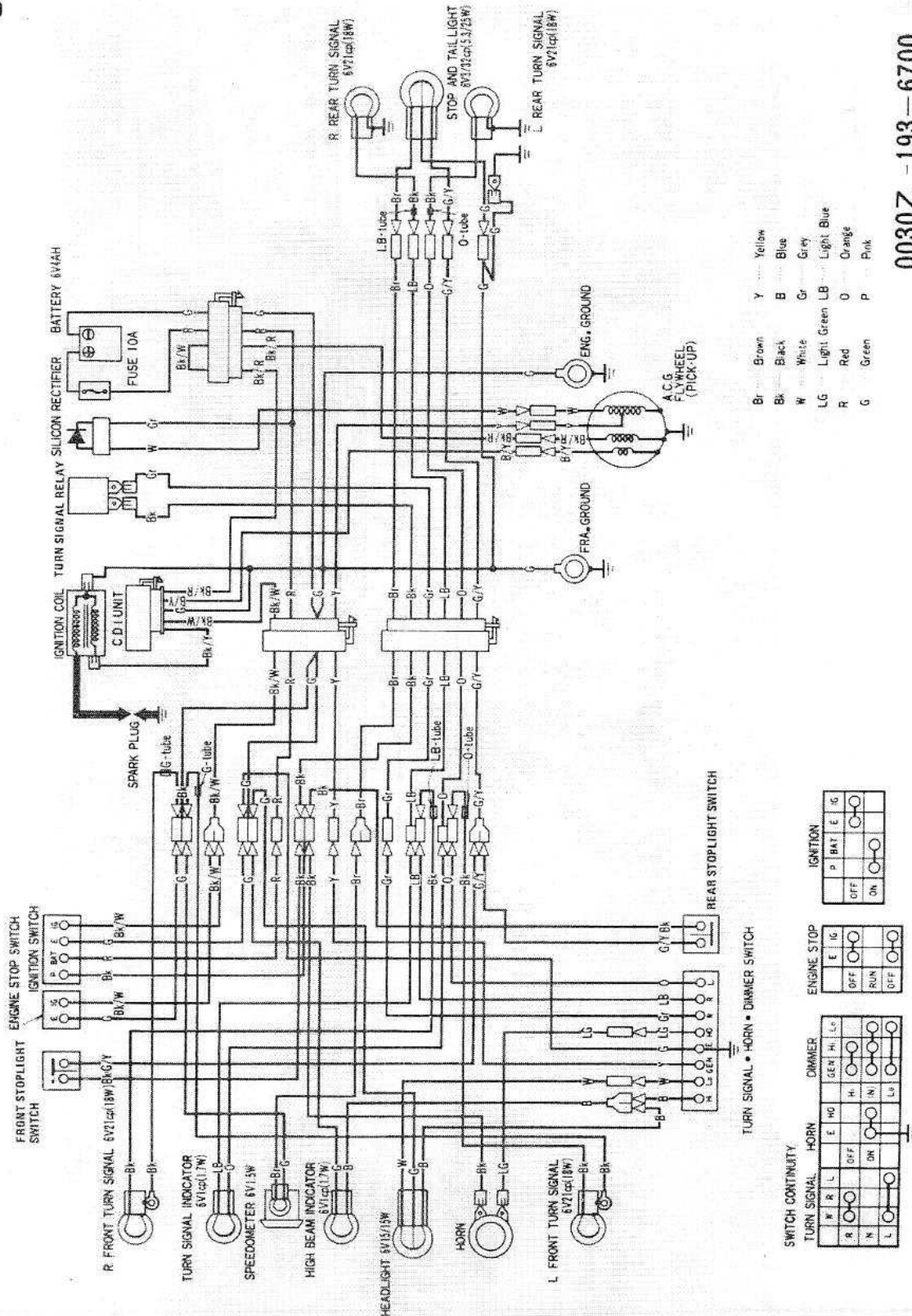
	NA50	NC50
DRIVE CHAIN		
Clutch	Automatic centrifugal wet type	
Primary reduction	Chain and gear	
Gear ratio I	1.482:1	1.000:1
II	1.000:1	Not applicable
Final reduction	14.220:1	
ELECTRICAL		
Ignition	Capacitive Discharge Ignition	
Starting system	Kick Starter	
Generator	A.C. generator 6V, 68W/5,000 rpm	
Spark plug () : optional	NGK:BP4HS, (BP5HS), ND:W14FP-L (W16FP)	
Spark plug gap	0.6 – 0.7 mm (0.024 – 0.028 in)	
Ignition timing	18° BTDC	
Battery capacity	6V 4AH	
Fuse capacity	10 amp	
Headlight Low/High	6V-15/15W	
Tail/stoplight	6V-5.3/25W (3/32 CP)	
Turn signal	6V-17/17W (21/21 CP)	
Speedometer light	6V-1.5W (1 CP)	
High beam indicator	6V-1.7W (1 CP) SAE No. 51	
Turn signal indicator	6V-1.7W (1 CP) SAE No. 51	



HONDA
NC50·NA50

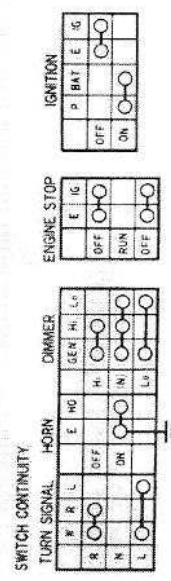
15. WIRING DIAGRAMS

'81 NA50

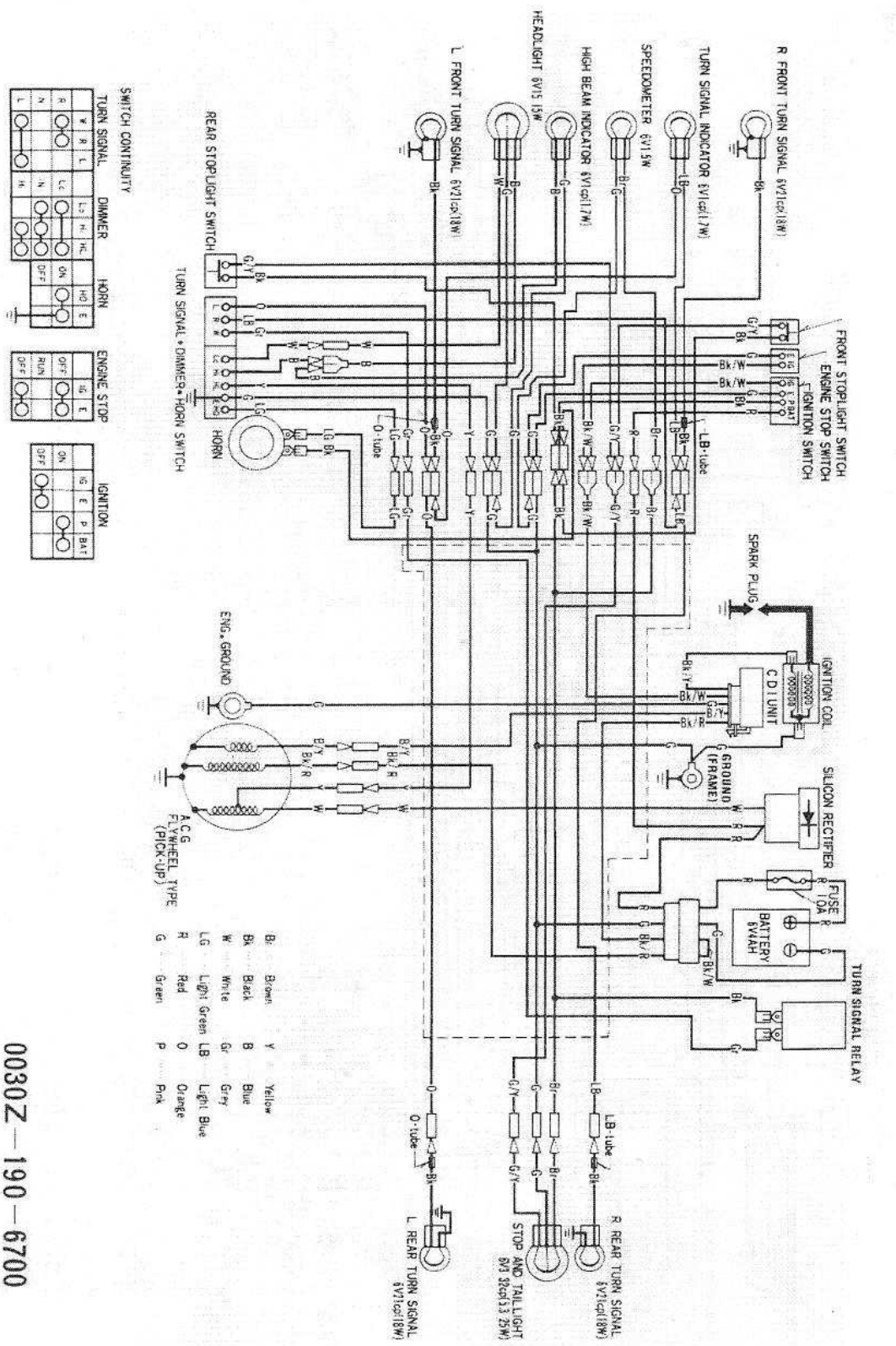


Br	Brown	Y	Yellow
Bk	Black	B	Blue
W	White	Gr	Grey
LG	Light Green	LB	Light Blue
R	Red	O	Orange
G	Green	P	Pink

0030Z - 193 - 6700



'81 NC50



0030Z-190-6700



FOREWORD

This addendum contains service procedures and data for the 1982 Honda NC50.

Refer to the base shop manual for service items not described in this addendum.

ALL INFORMATION, ILLUSTRATIONS, DIRECTIONS AND SPECIFICATIONS INCLUDED IN THIS PUBLICATION ARE BASED ON THE LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF APPROVAL FOR PRINTING. HONDA MOTOR CO., LTD. RESERVES THE RIGHT TO MAKE CHANGES AT ANY TIME WITHOUT NOTICE AND WITHOUT INCURRING ANY OBLIGATION WHATEVER.

NO PART OF THIS PUBLICATION MAY BE REPRODUCED WITHOUT WRITTEN PERMISSION.

HONDA MOTOR CO., LTD.
Service Publications Office

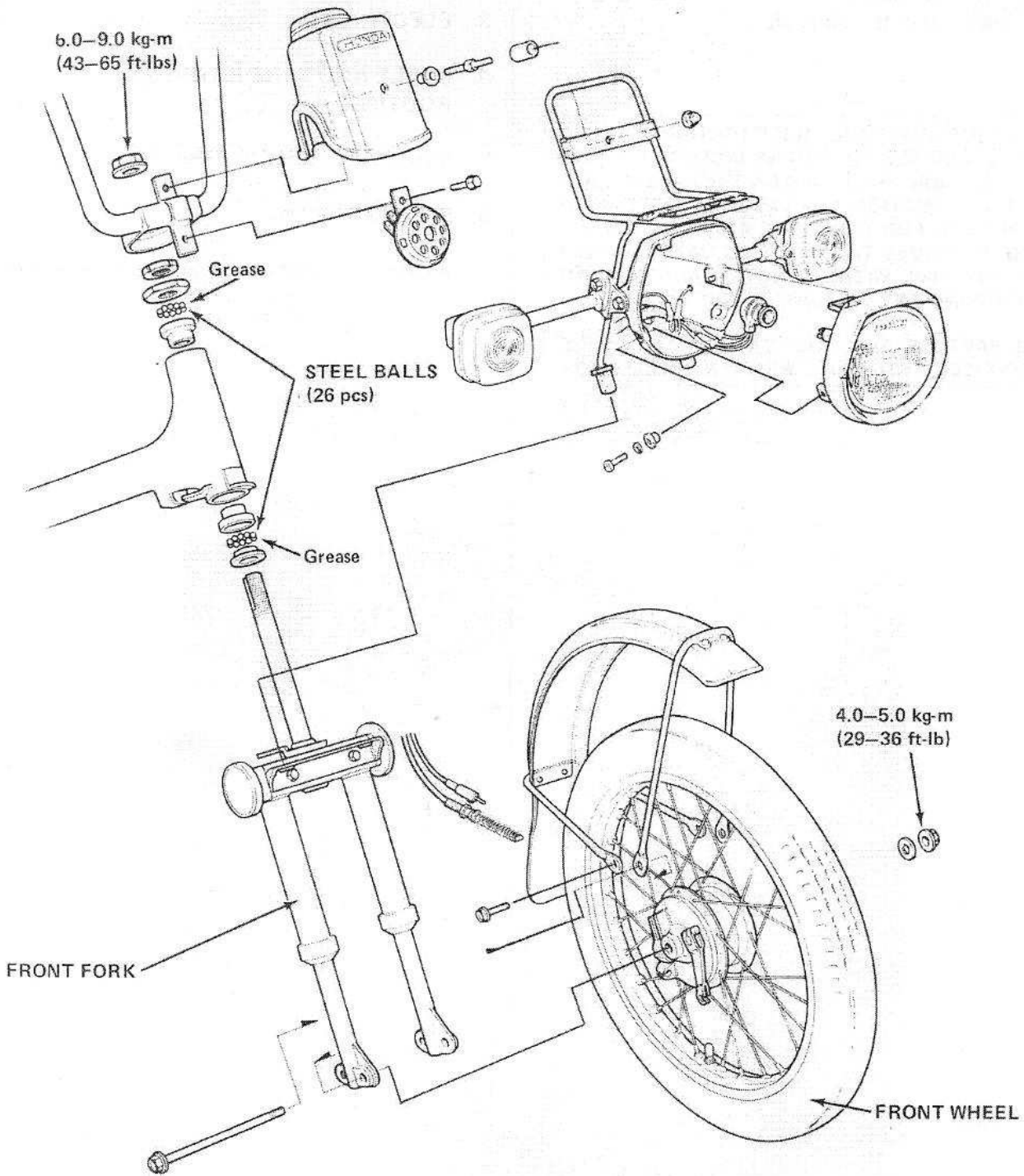
TABLE OF CONTENTS

- 1. FRONT FORK/FRONT WHEEL 32-2
- 2. FUEL TANK/SEAT/REAR CARRIER... 32-3
- 3. ELECTRICAL..... 32-4
- 4. CABLE AND WIRE HARNESS
ROUTING..... 32-5
- 5. MAINTENANCE SCHEDULE 32-8
- 6. SPECIFICATIONS 32-9
- 7. WIRING DIAGRAM..... 32-10



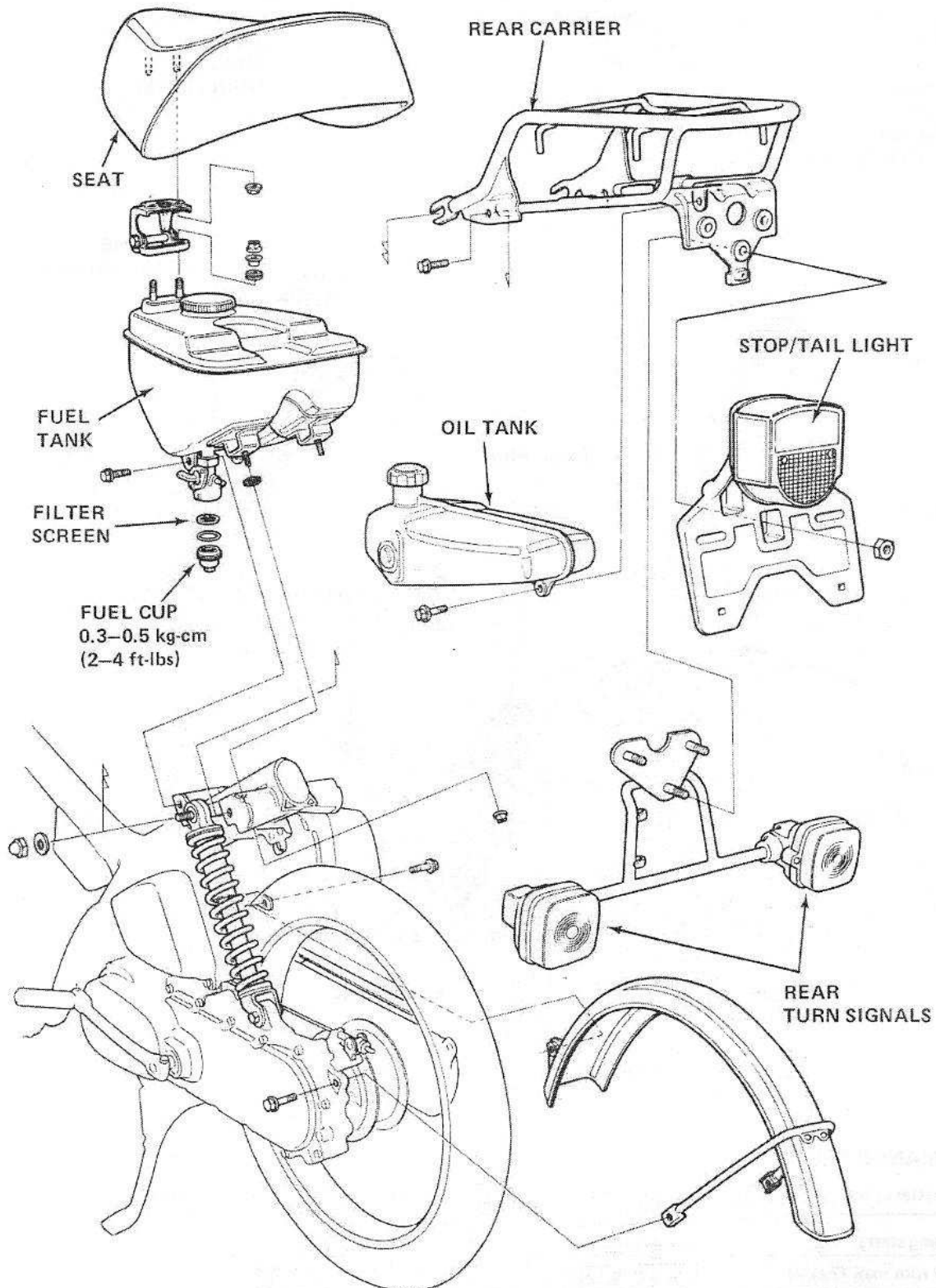
1. FRONT FORK/FRONT WHEEL

NOTE: The front axle nut torque has been increased. Refer to page 17-1 for steering stem tightening procedures.





2. FUEL TANK/SEAT/REAR CARRIER





3. ELECTRICAL

COMPONENT LOCATIONS

1. IGNITION SYSTEM

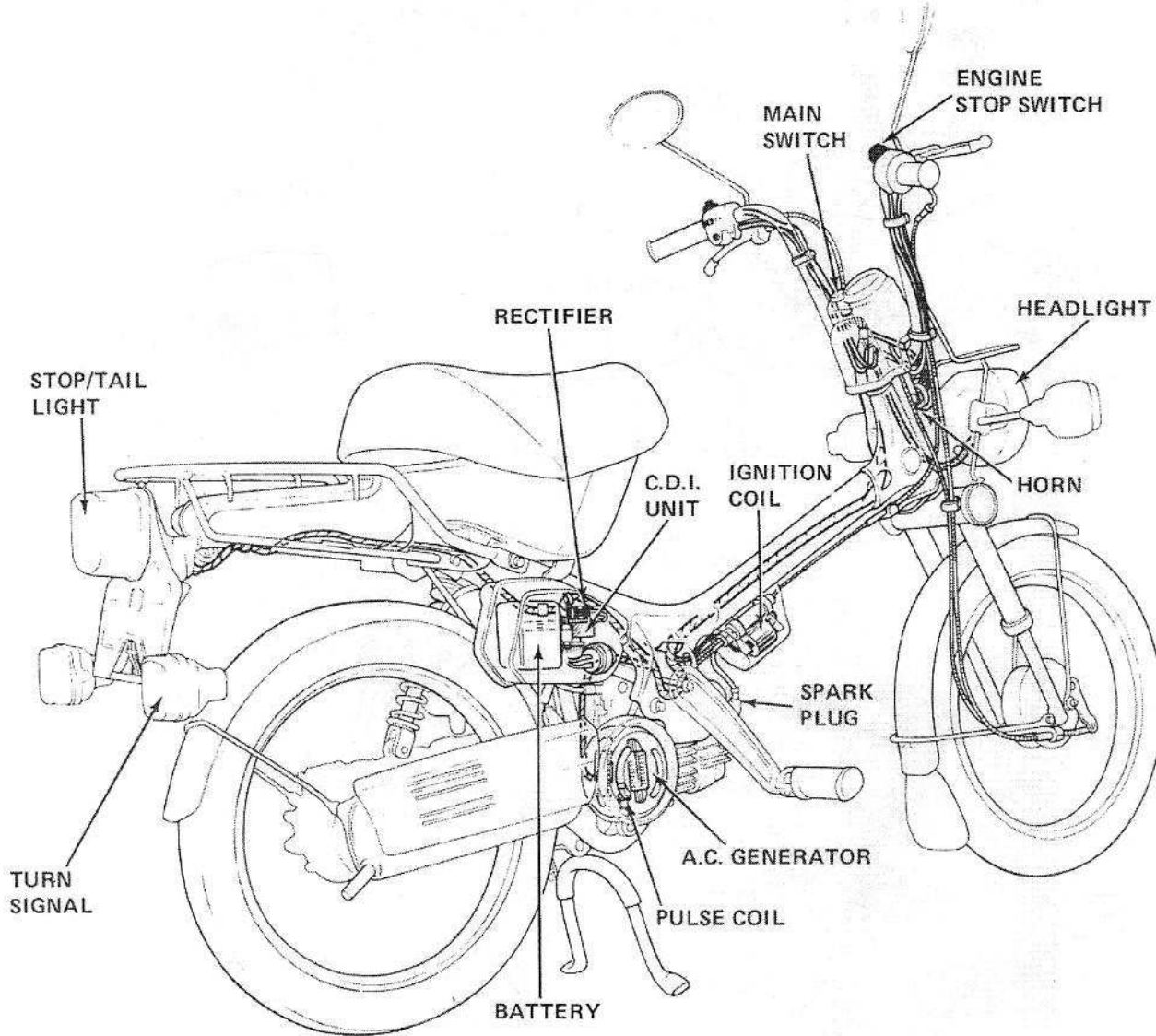
- IGNITION COIL
- A.C. GENERATOR
- C.D.I. UNIT
- SPARK PLUG
- PULSE COIL
- MAIN SWITCH
- ENGINE STOP SWITCH

2. BATTERY/CHARGING SYSTEM

- A.C. GENERATOR
- RECTIFIER
- BATTERY

3. LIGHTING SYSTEM AND HORN

- HEADLIGHT
- STOP/TAIL LIGHT
- HORN
- TURN SIGNAL



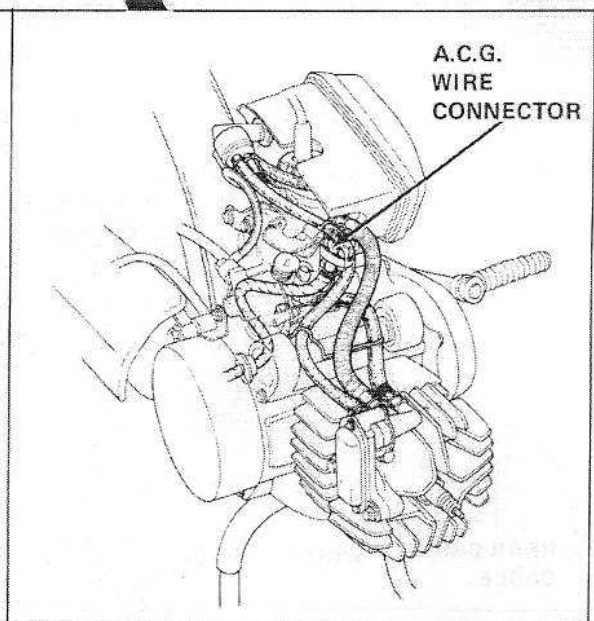
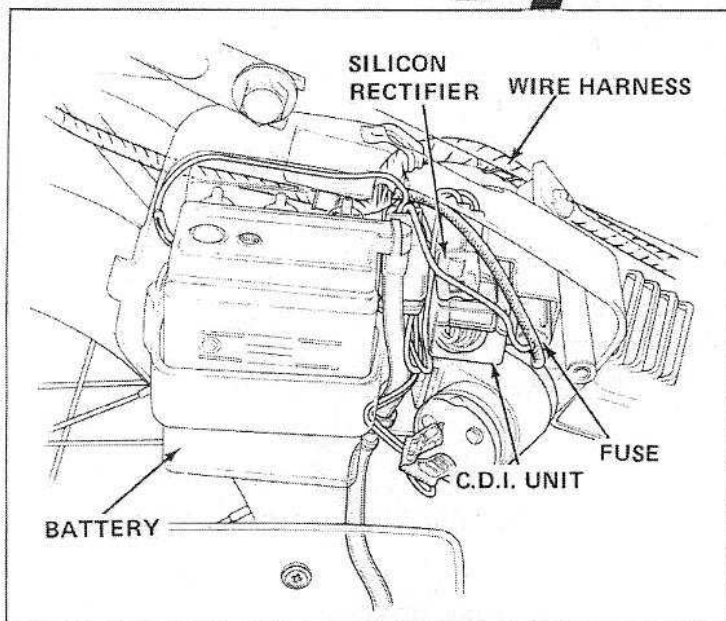
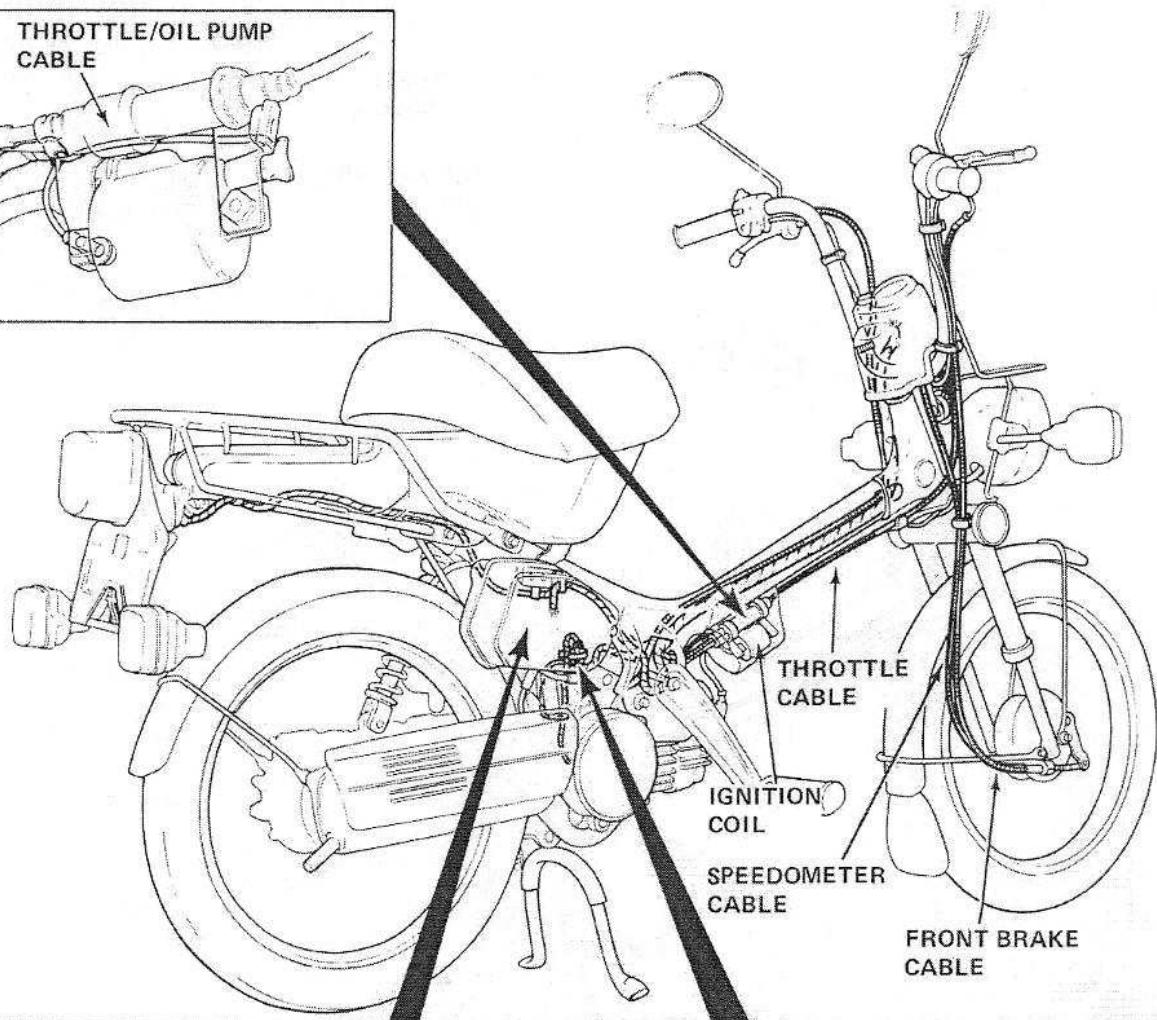
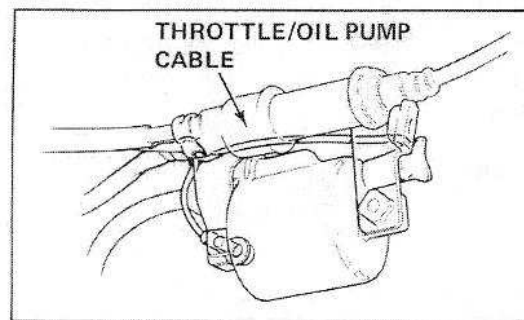
PERFORMANCE TEST

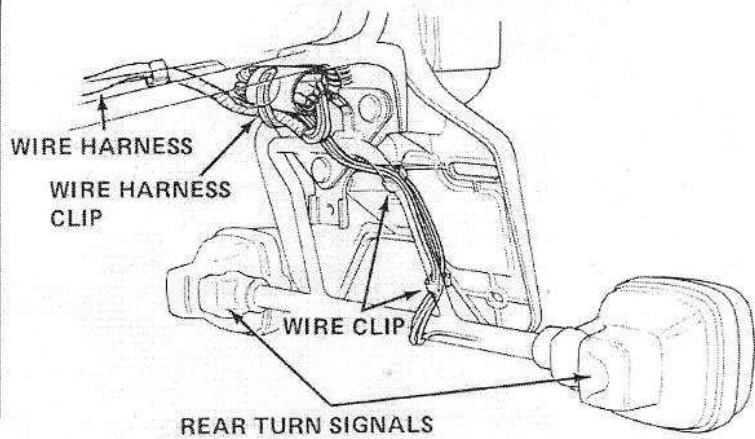
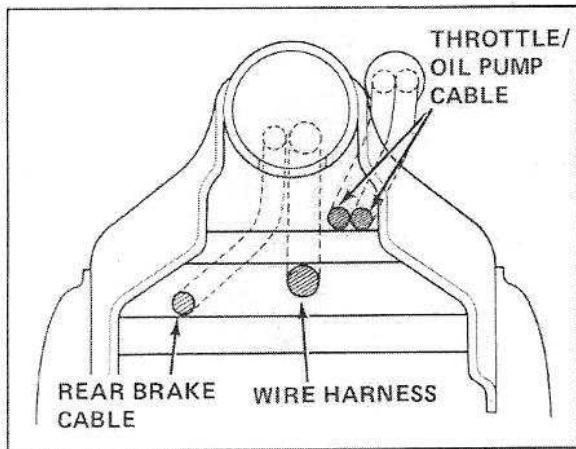
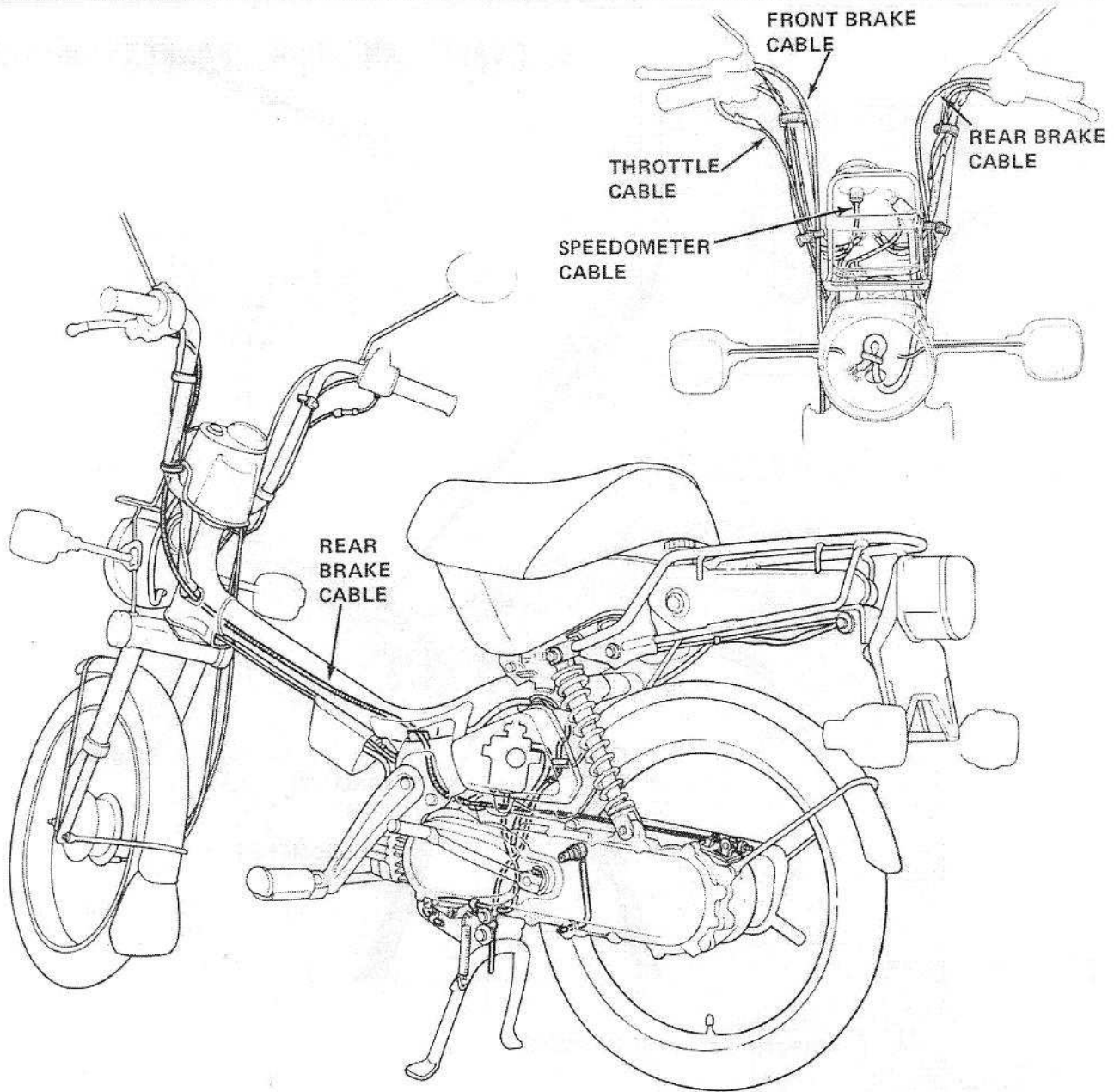
Check the battery, A.C. generator and resistor when the readings do not match the specifications below.

Charging starts	4,000 rpm	6,000 rpm
1,600 rpm max (7.0 V)	1.3 A min, (8.5 V)	2.5 A max (8.7 V)



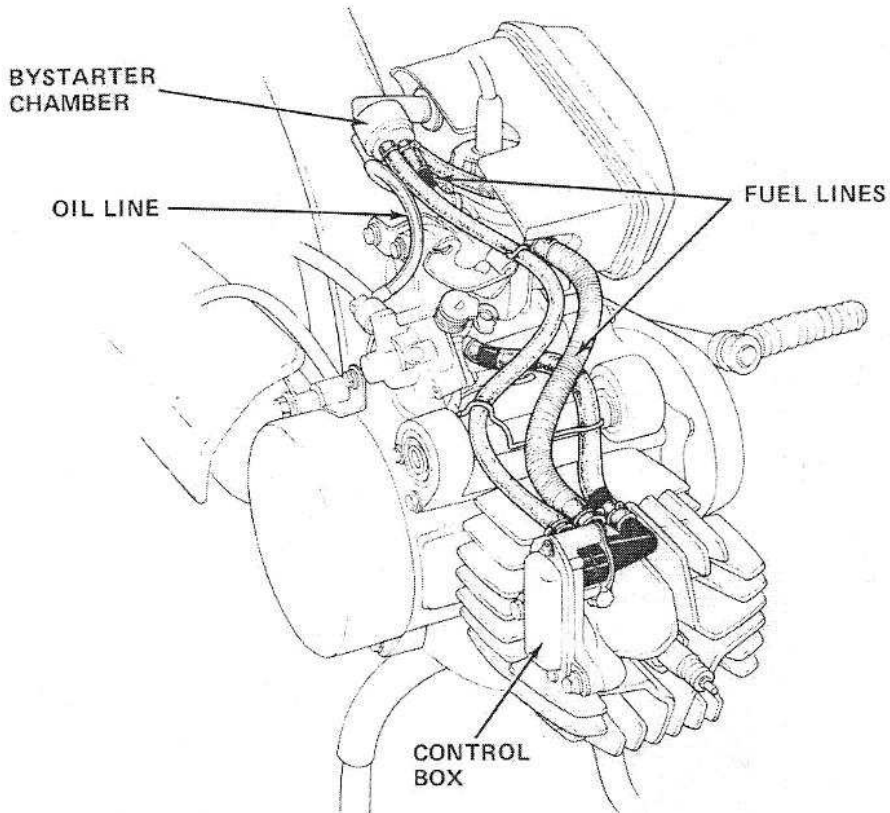
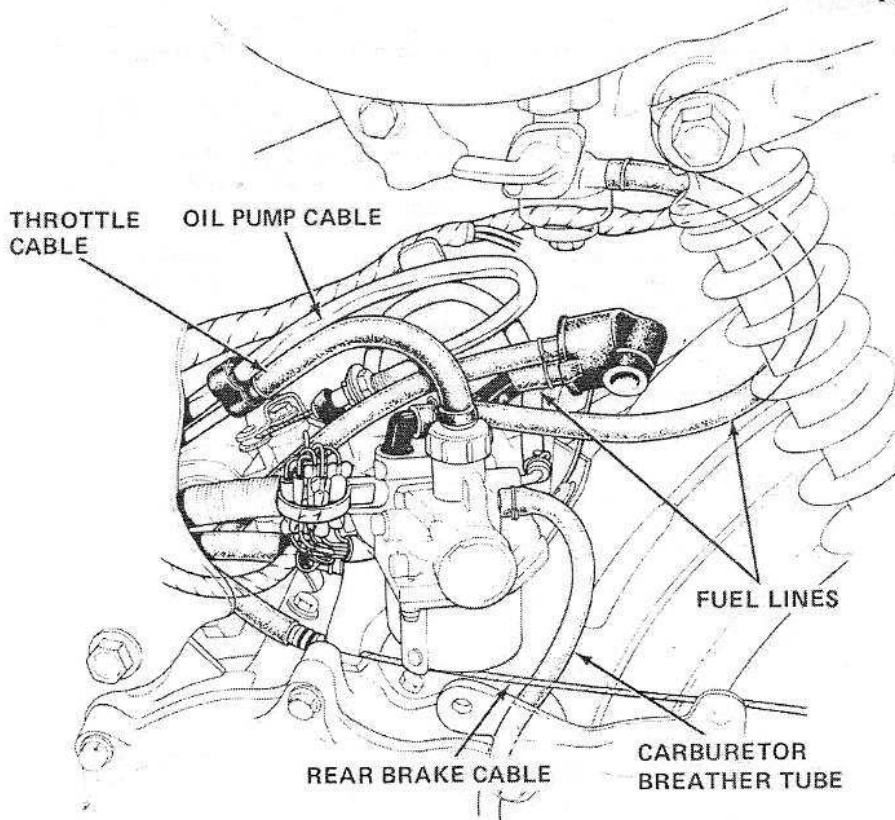
4. CABLE AND WIRE HARNESS ROUTING







FUEL LINE ROUTING





5. MAINTENANCE SCHEDULE

The fuel filter screen maintenance schedule has been changed. Refer to page 31-24 for all other maintenance schedule items.

MAINTENANCE SCHEDULE This maintenance schedule is based upon average riding conditions. Machines subjected to severe use, or ridden in unusually dusty areas, require more frequent servicing.	INITIAL SAFETY INSPECTION	REGULAR SERVICE Perform at every indicated month or mileage interval, whichever comes first	
	1 month 200 miles 300 km	12 months 1,000 miles 1,500 km	24 months 2,000 miles 3,000 km
FUEL FILTER SCREEN	C		C



6. SPECIFICATIONS

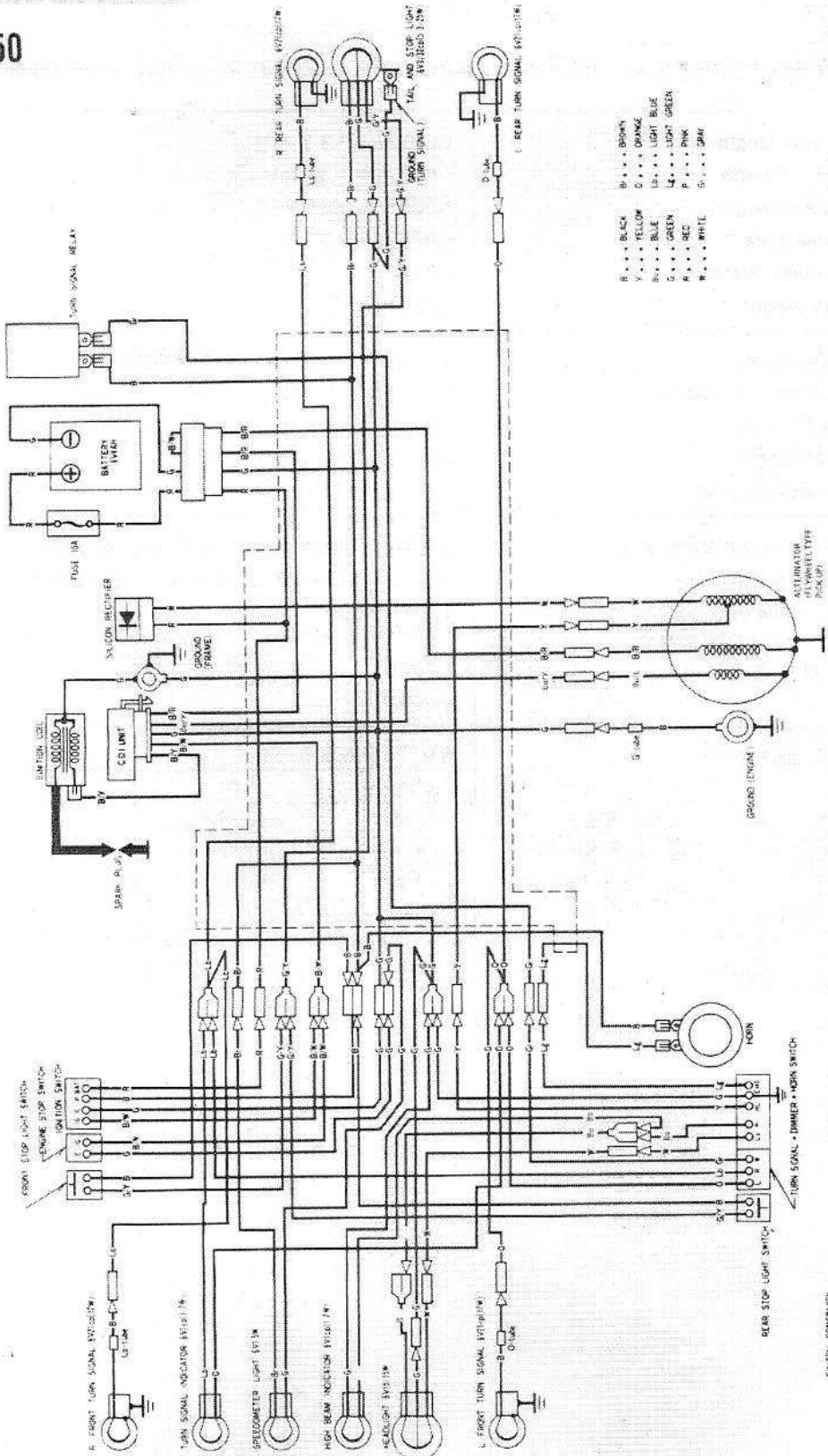
Only specifications that are new or different for 1982 are listed below. Refer to page 31-25 for other specifications.

DIMENSIONS	Overall length	1,615 mm (63.6 in)		
	Overall width	610 mm (24 in)		
	Overall height	1,005 mm (39.5 in)		
	Wheel base	1,057 mm (41.6 in)		
	Ground clearance	127 mm (5 in)		
	Dry weight	50 kg (110 lb)		
FRAME	Fuel capacity	4.55 liters (1.18 U.S. gal. 1.0 Imp. gal.)		
	Fuel reserve capacity	0.75 liters (0.19 U.S. gal. 0.16 Imp. gal.)		
	Caster angle	25°		
	Trail length	80 mm (3.15 in)		
	Front fork grease	11 cc (0.36 oz.)		
ENGINE	Transmission oil capacity	0.65 liters (0.68 U.S. qt., 0.57 Imp. qt); 10W-40 motor oil		
	Oil tank capacity	1.2 liters (1.26 U.S. qt., 1.05 Imp. qt); 2 stroke injector oil		
	Air screw opening	1 1/2 turns out		
DRIVE TRAIN	Gear ratio I	1.482:1		
	II	1.000:1		
ELECTRICAL	A.C. generator	6 V, 76 w/5,000 rpm		
	Spark plug	NGK	ND	
		Standard	BPR4HS	W14FPR-L
		For cold climate	BPR2HS	W9FPR-L
	For extended riding	BPR5HS	W16FPR	
Spark plug gap	0.6-0.7 mm (0.024-0.028 in)			



7. WIRING DIAGRAM

'82 NC50



- B . . . BLACK
- Y . . . YELLOW
- B . . . BLUE
- G . . . GREEN
- R . . . RED
- W . . . WHITE
- Br . . . BROWN
- Or . . . ORANGE
- Li . . . LIGHT BLUE
- Lg . . . LIGHT GREEN
- Li . . . LIGHT PINK
- Gr . . . GRAY

0030Z—GA6—6700

