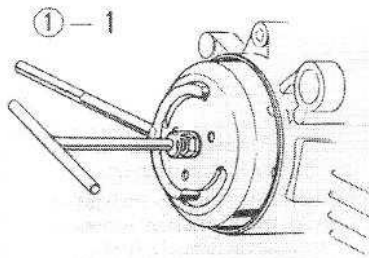
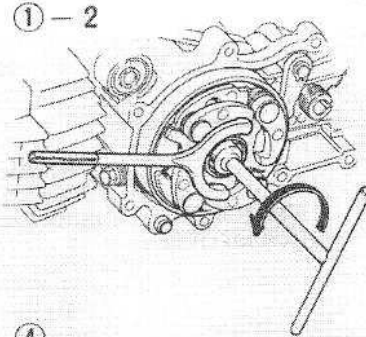




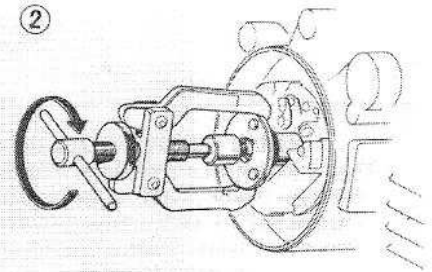
**SPECIAL TOOLS**



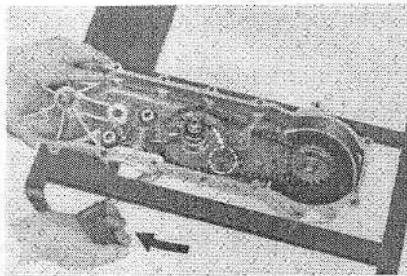
①-1



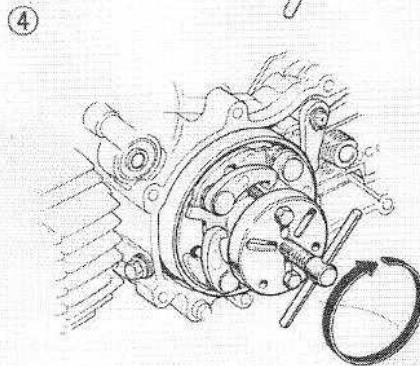
①-2



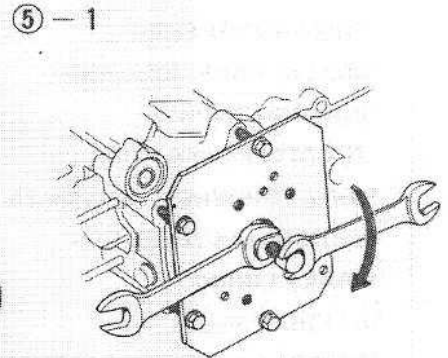
②



③



④



⑤-1

⑤-2

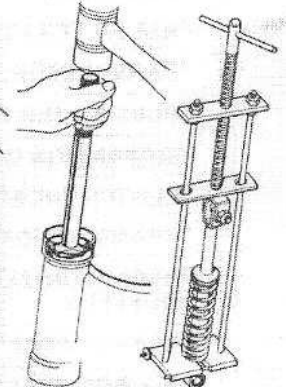
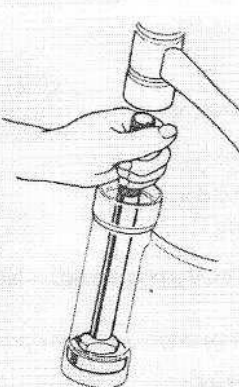
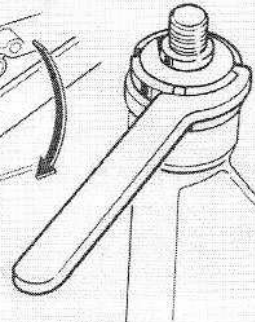
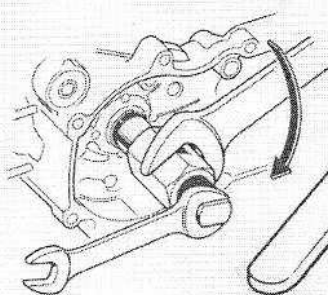
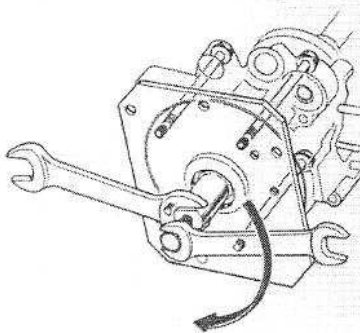
⑥

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

<b>MAINTENANCE SCHEDULE</b> This maintenance schedule is based upon average riding conditions. Machines subjected to severe use, or ridden in unusually dusty areas, require more frequent servicing.	<b>PRE-RIDING INSPECTION</b>	<b>INITIAL SAFETY INSPECTION</b>	<b>REGULAR SERVICE PERIOD</b> 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)

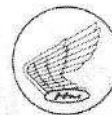
Ref. No.	Tightening point	Q'ty	Thread dia. mm	Torque		Page
				kg-cm	(lbs - ft)	
1	Cylinder head hold-down nuts	4	6	90-120	(6.5 - 8.7)	10-1
2	A.C. flywheel generator attaching nut	1	10	300-350	(21.7 - 25.3)	12-1
3	Clutch (drive plate) attaching nut	1	10	300-350	(21.7 - 25.3)	14-1
4	Inlet pipe attaching 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)	9-1 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 scribble*

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



**TROUBLE SHOOTING**

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

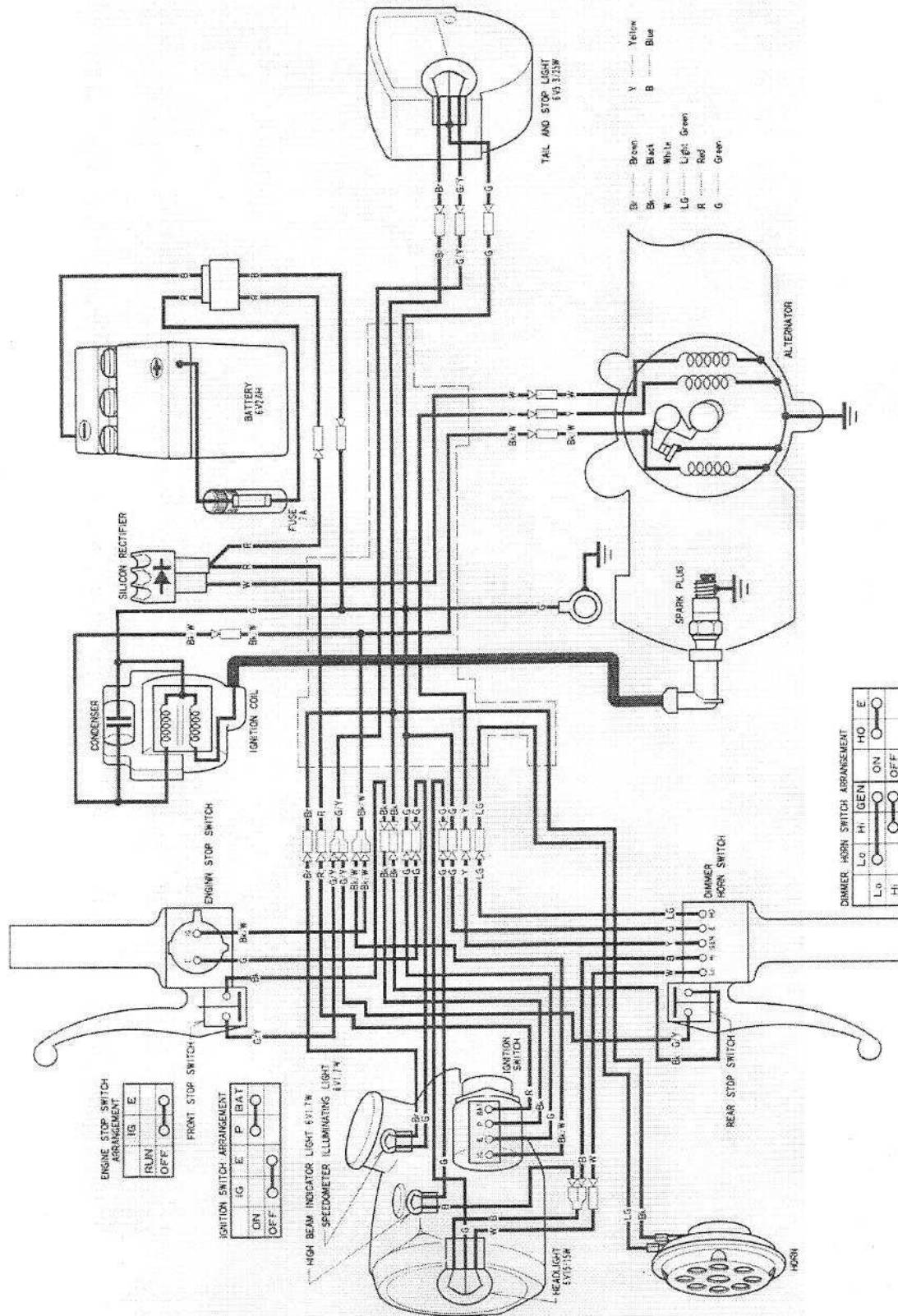
<p><b>DIMENSIONS</b></p> <p>Overall length</p> <p>Overall width</p> <p>Overall height</p> <p>Wheel base</p> <p>Ground clearance</p> <p>Dry weight</p>	<p>1,550mm (61 in.)</p> <p>600mm (23.6 in.)</p> <p>1,000mm (39.4 in.)</p> <p>1,050mm (41.3 in.)</p> <p>125mm ( 4.9 in.)</p> <p>43 kg (94.8 lb.)</p>
<p><b>FRAME</b></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/cm<sup>2</sup>)</p> <p>2.25 - 14 - 4PR 28 psi. (2.0kg/cm<sup>2</sup>)</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><b>ENGINE</b></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>



<b>DRIVE TRAIN</b> Clutch Primary reduction Final reduction	Automatic centrifugal wet type Chain and gear 14.220 : 1
<b>ELECTRICAL</b> 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

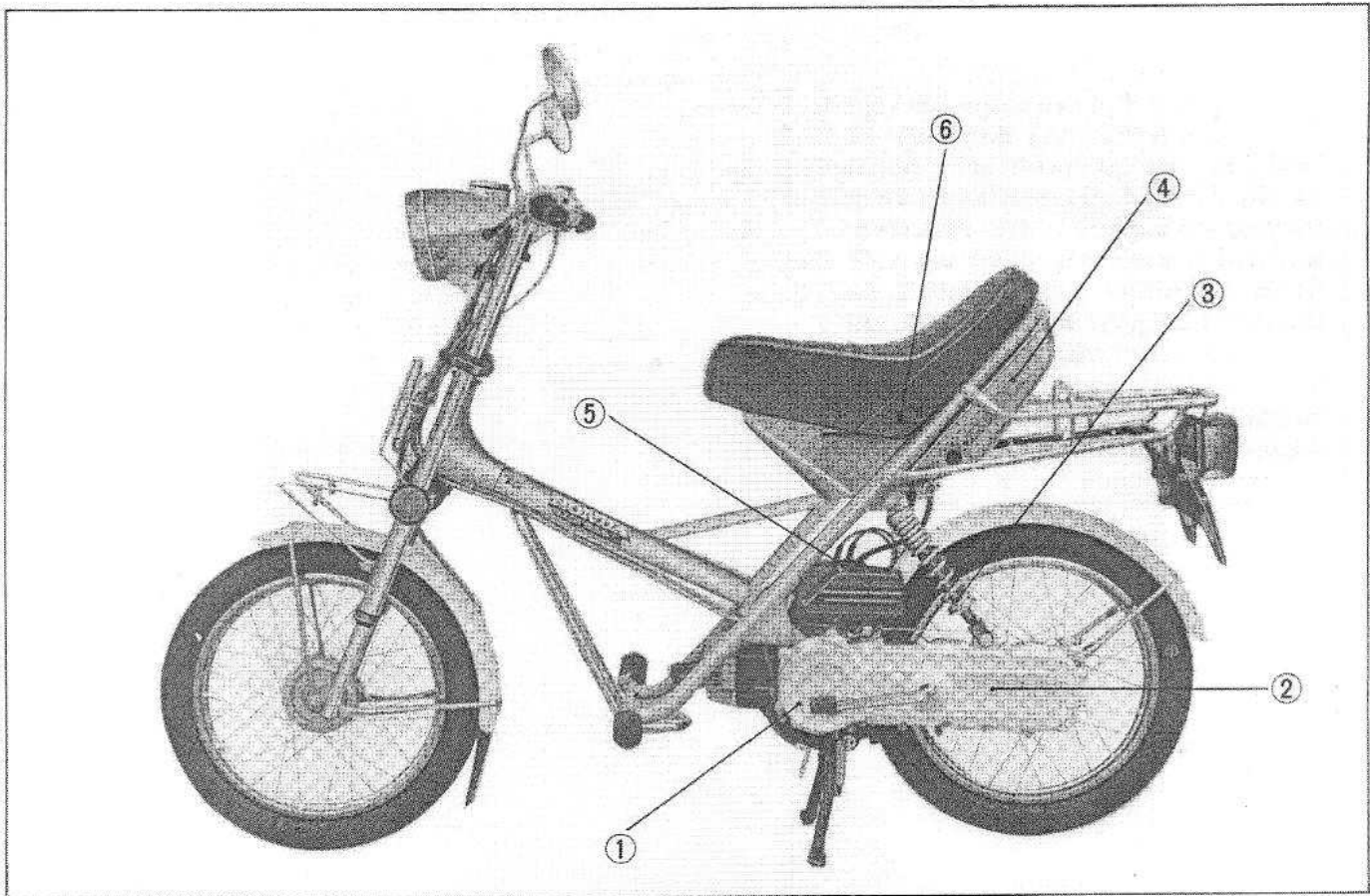
# FEATURES

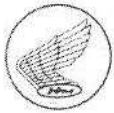
The Honda NA50 is powered by a 2-stroke, 49 cc, crankcase scavenged engine with two reed valves incorporated in the intake port.

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.





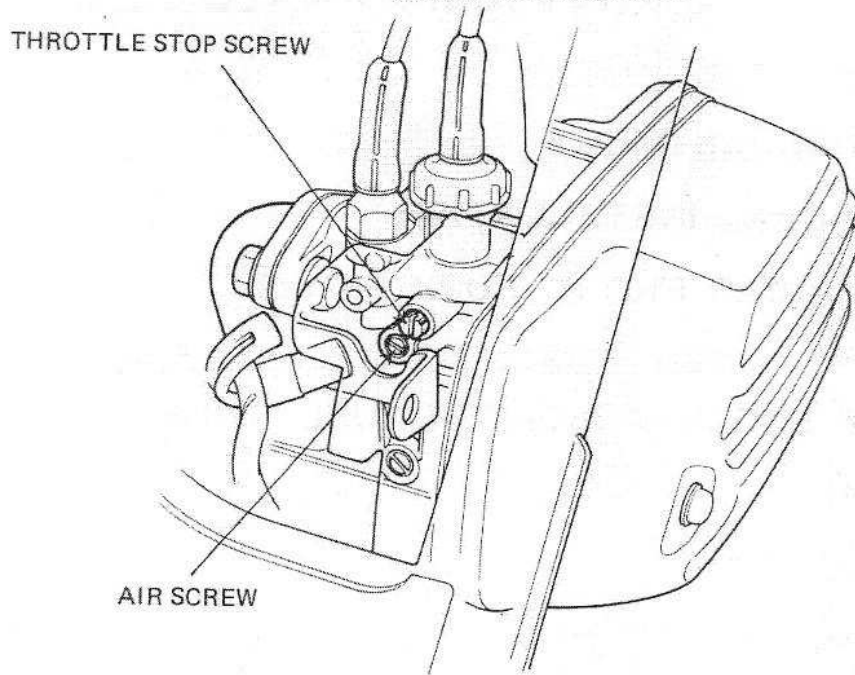
**HONDA**  
**NA50**

## 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

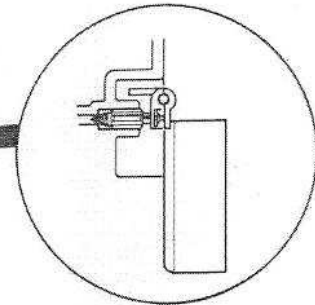
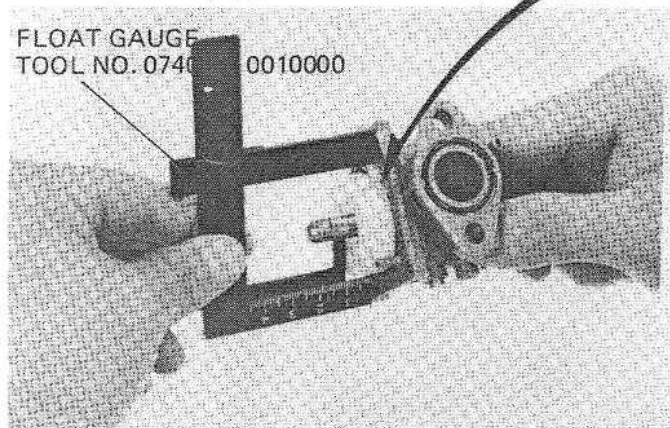
## (IDLE ADJUSTMENT)



- 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)

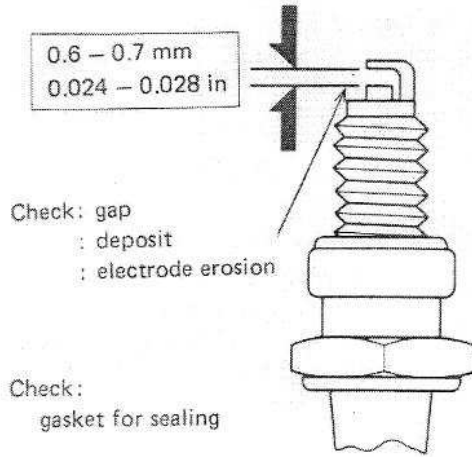
The float level is non-adjustable. Replace the carburetor float or float valve if the level is not correct.



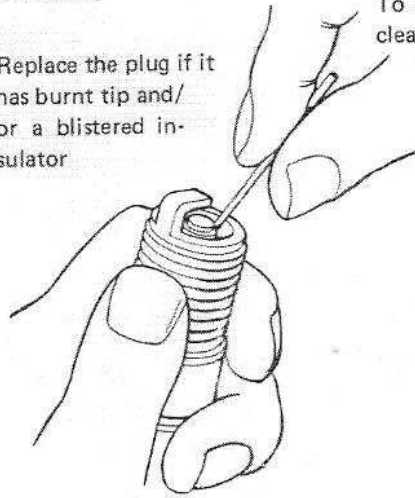
# HONDA NA50

## INSPECTION/ADJUSTMENT

### (SPARK PLUG)



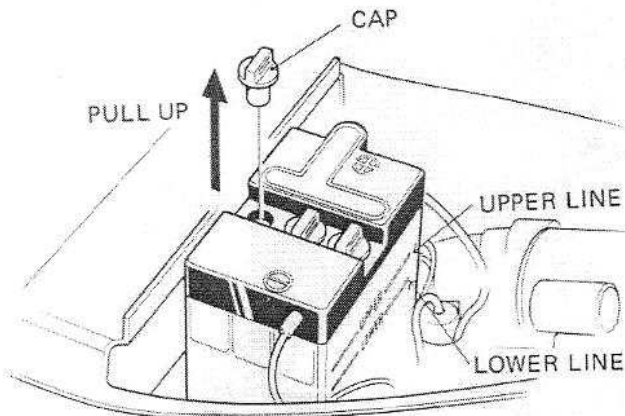
Replace the plug if it has burnt tip and/or a blistered insulator



Use only the specified spark plug:

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

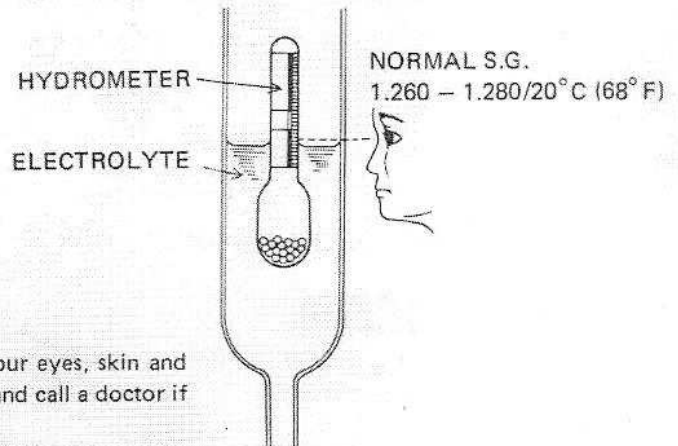
### (BATTERY ELECTROLYTE LEVEL CHECK/REPLENISHMENT)



#### NOTE

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

#### — READING SPECIFIC GRAVITY OF ELECTROLYTE —



#### WARNING

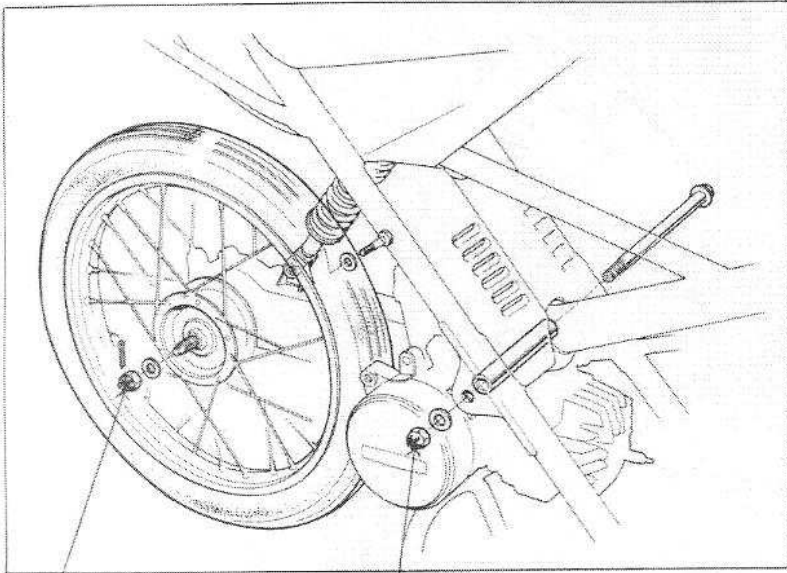
- The battery electrolyte contains sulfuric acid. Protect your eyes, skin and clothing. In case of contact, flush thoroughly with water and call a doctor if electrolyte gets in your eyes.
- The battery generates hydrogen gas. Do not smoke or allow flames or sparks near the battery, especially while charging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

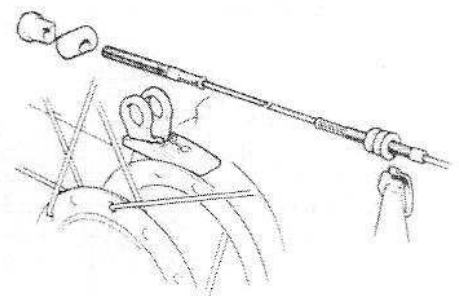


**NOTE**

400 – 500kg · cm  
(29 – 36ft·lbs)

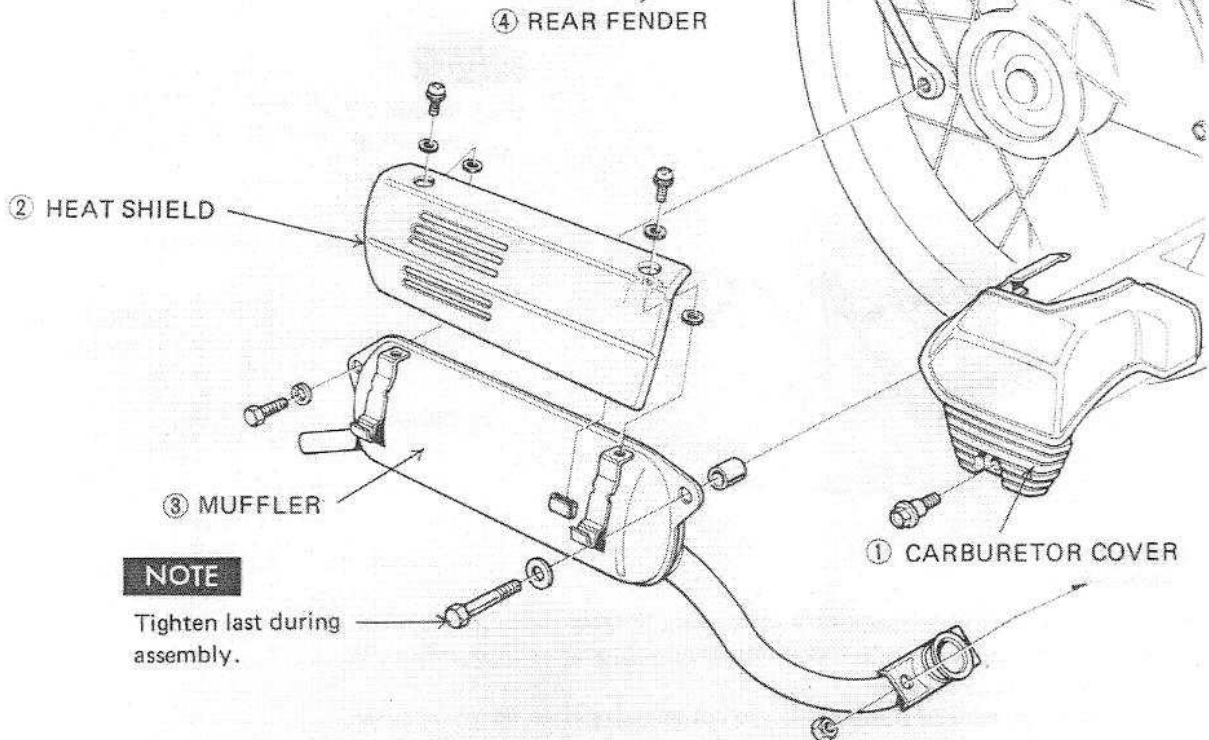
**NOTE**

300 – 400 kg · cm  
(22 – 29ft·lbs)



- ⑩ REAR BRAKE CABLE

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



④ REAR FENDER

② HEAT SHIELD

③ MUFFLER

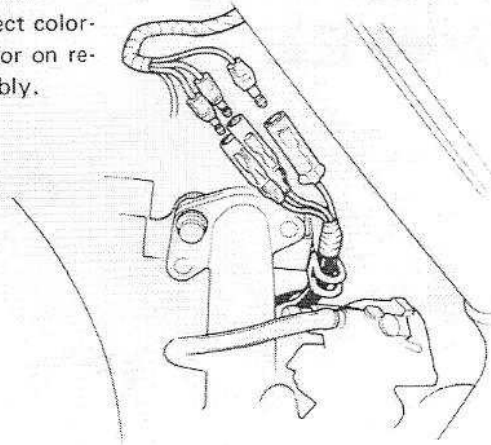
① CARBURETOR COVER

**NOTE**

Tighten last during assembly.

**NOTE**

Connect color-to-color on re-assembly.

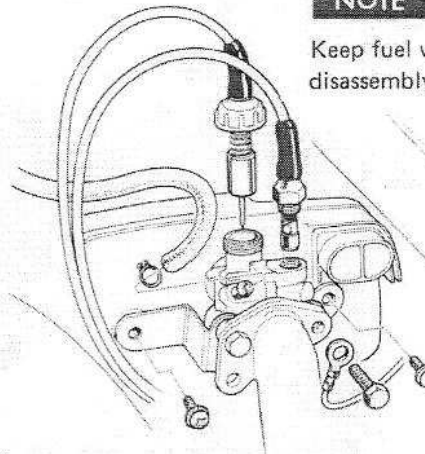


⑨ PRIMARY WIRE

⑦ CARBURETOR/AIR CLEANER

**NOTE**

Keep fuel valve closed during disassembly.

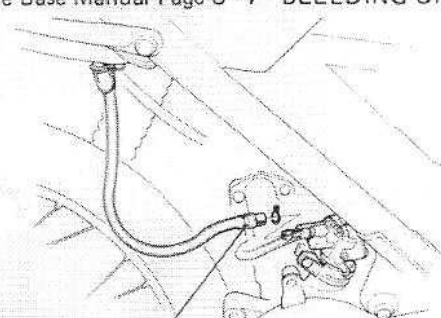


⑧ OIL TUBE

**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 kg - cm  
(43 – 65ft - lbs)

③ TOP CONE RACE

**GREASE**

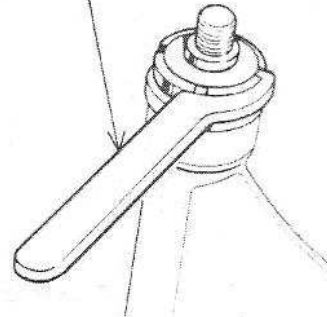
STEEL BALLS (26 PCS)

**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**

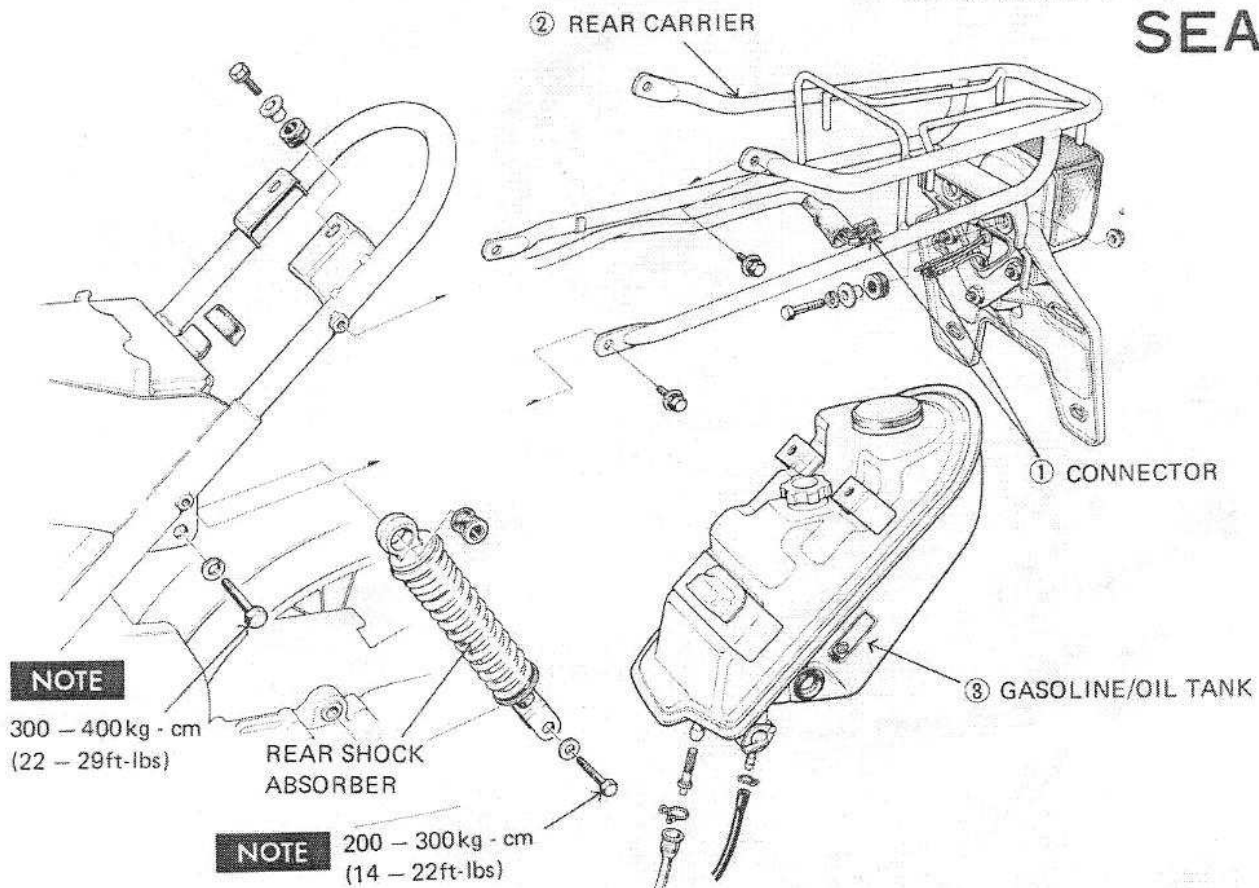
**NOTE**

300 – 400 kg - cm  
(22 – 29ft - lbs)

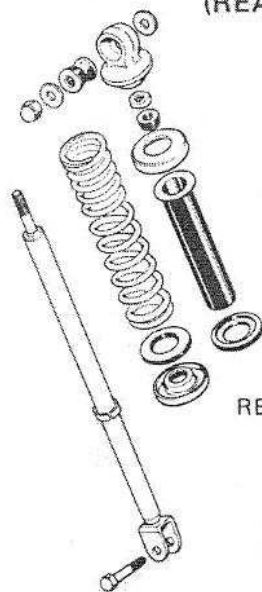
■ BALL RACE DISASSEMBLY AND ASSEMBLY, See Base Manual PAGE 17 - 3.



## 4 Frame REAR SHOCK ABSORBER/ FUELTANK/ SEAT



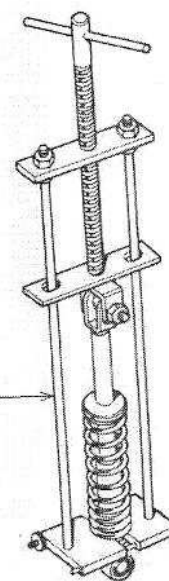
### (REAR SHOCK ABSORBER DISASSEMBLY)



**NOTE**  
After assembling, check  
operation.

S. TOOL

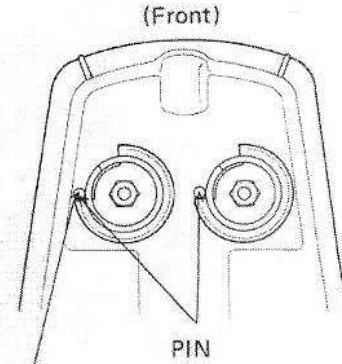
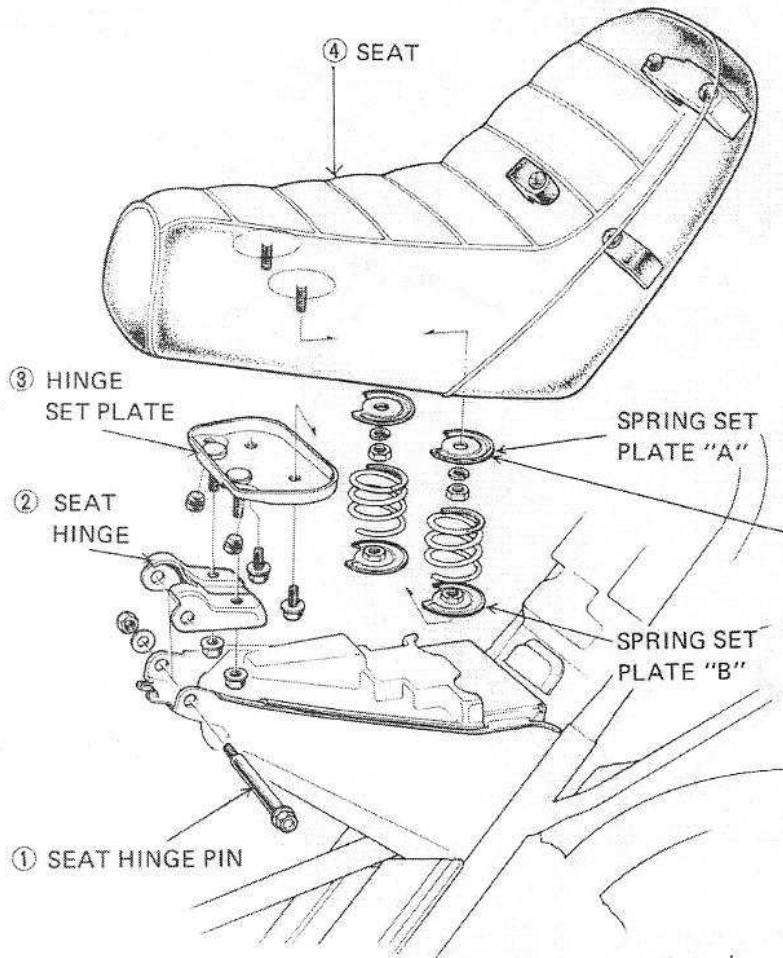
REAR SHOCK ABSORBER COMPRESSOR  
(No. 07959-3290000)



Frame  
REAR SHOCK ABSORBER/  
FUEL TANK/SEAT

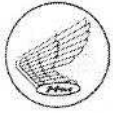
**HONDA**  
**NA50** 

(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

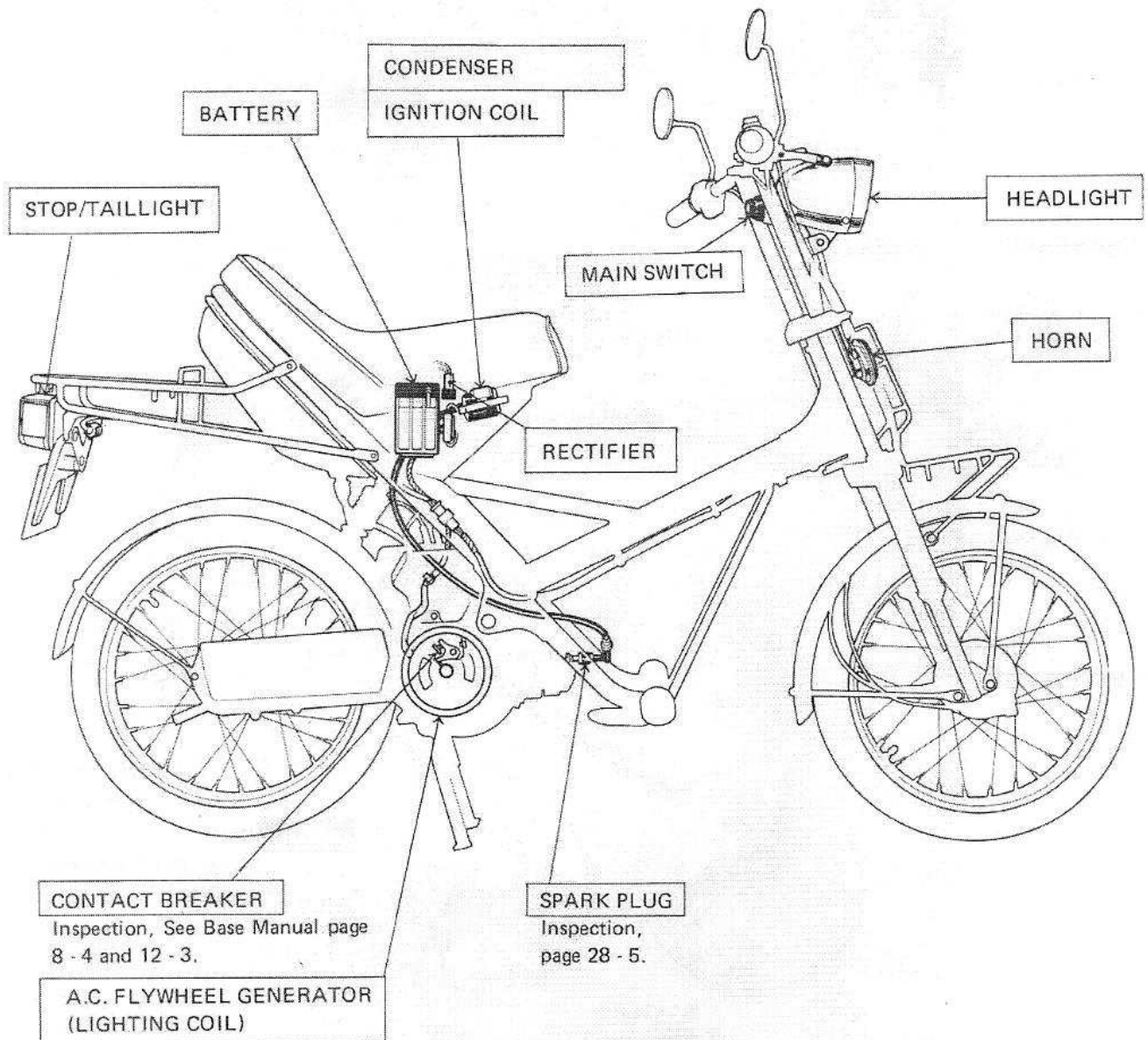
- CONTACT BREAKER
- IGNITION COIL
- CONDENSER
- SPARK PLUG

2. BATTERY CHARGING SYSTEM

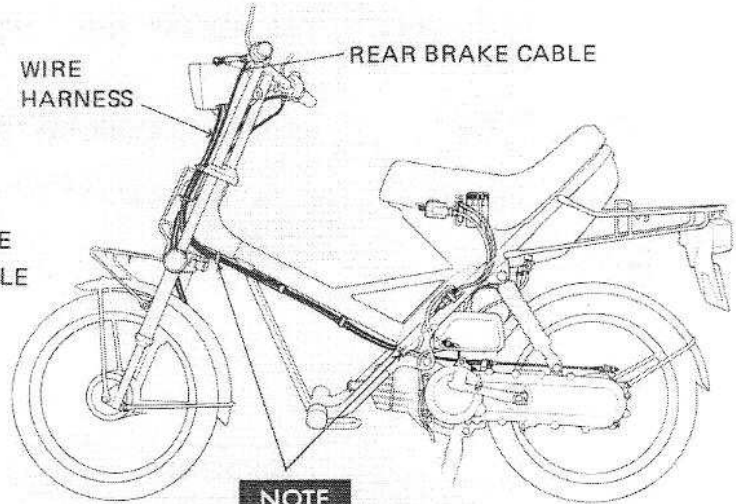
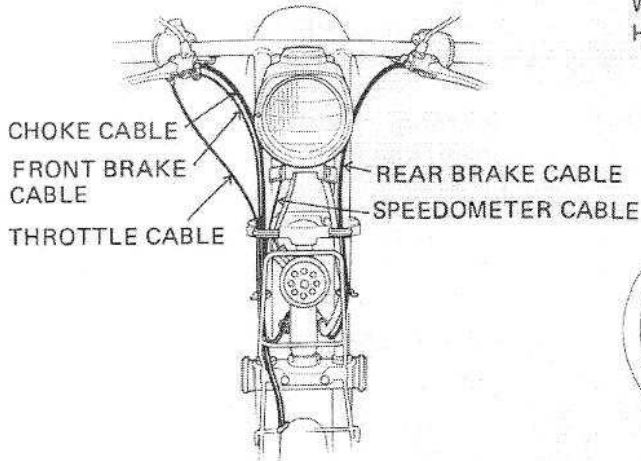
- A.C. FLYWHEEL GENERATOR
- RECTIFIER
- BATTERY

3. LIGHTING SYSTEM AND OTHERS

- HEADLIGHT
- STOP/TAILLIGHT
- HORN

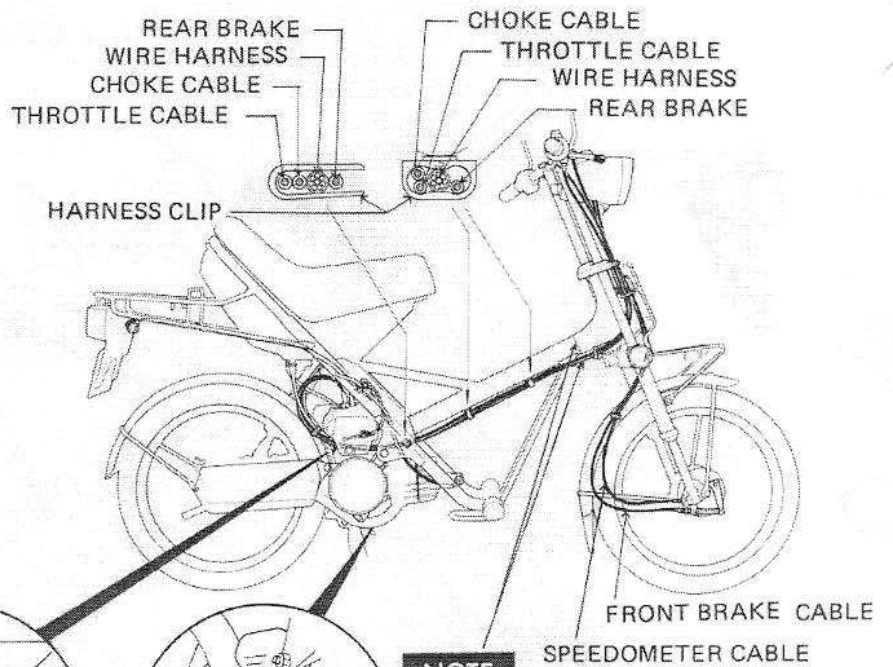
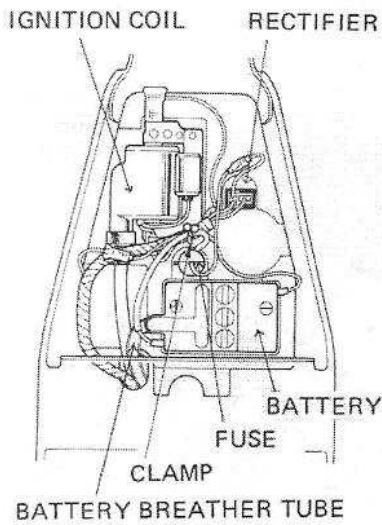


# CABLE ROUTING



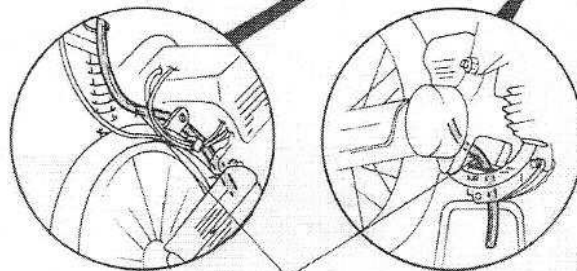
**NOTE**

Make sure the cables and harness are not twisted.



**NOTE**

Align the white cable mark with the frame coupler.



BATTERY BREATHER TUBE



## SPECIFICATIONS

<b>DIMENSIONS</b> 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)
<b>FRAME</b> 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 <sup>2</sup> ) 2.25 - 14 - 4PR 32 psi (2.25kg/cm <sup>2</sup> ) 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)
<b>ENGINE</b> 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



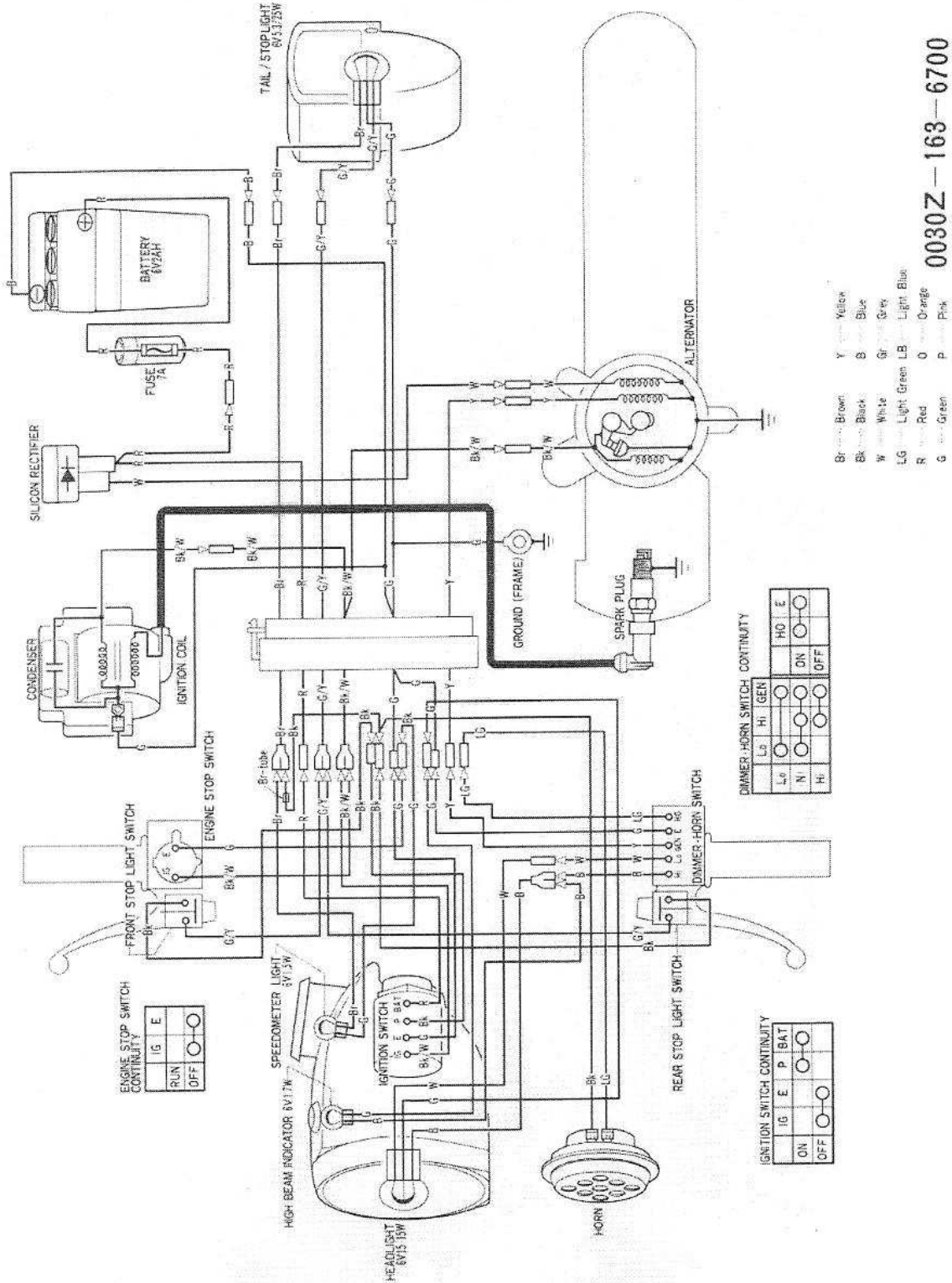
## SPECIFICATIONS



<p><b>DRIVE TRAIN</b></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><b>ELECTRICAL</b></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



0030Z-163-6700



**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

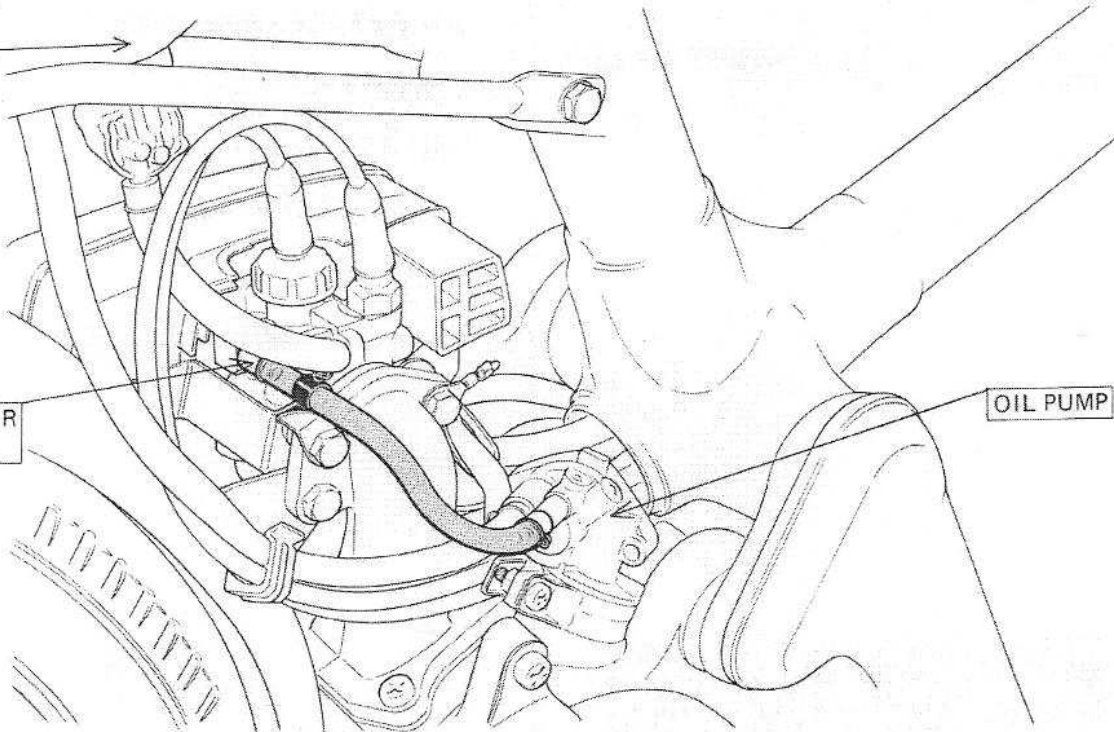
Engine lubricating oil is mixed with the fuel in the carburetor.

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.



'80 ADDENDUM

## ELECTRICAL

## ELECTRICAL ACCESSORIES AND THEIR LOCATIONS

## 1. IGNITION SYSTEM

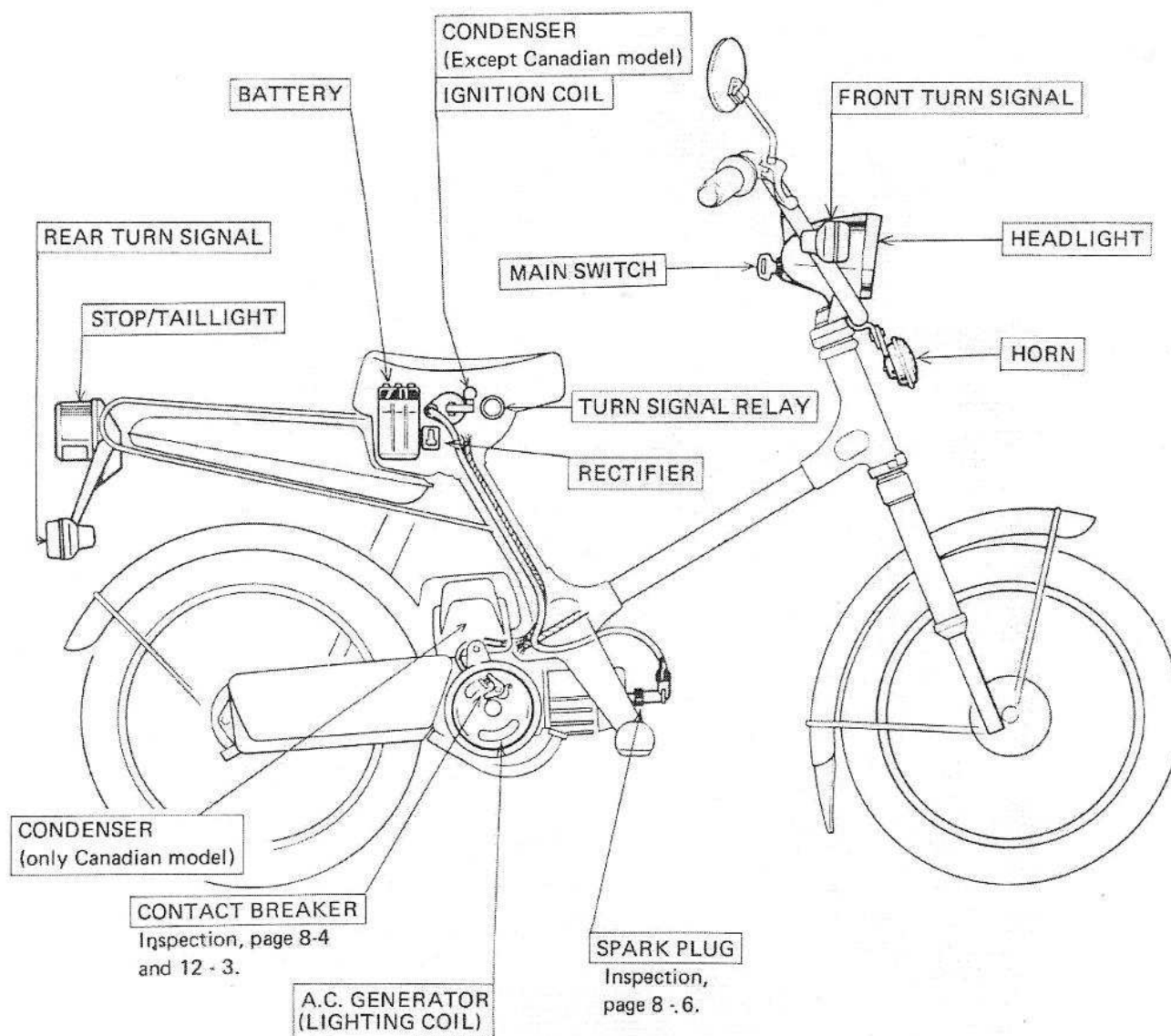
CONTACT BREAKER  
IGNITION COIL  
CONDENSER  
SPARK PLUG

## 2. BATTERY CHARGING SYSTEM

A.C. GENERATOR  
RECTIFIER  
BATTERY

## 3. LIGHTING SYSTEM

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

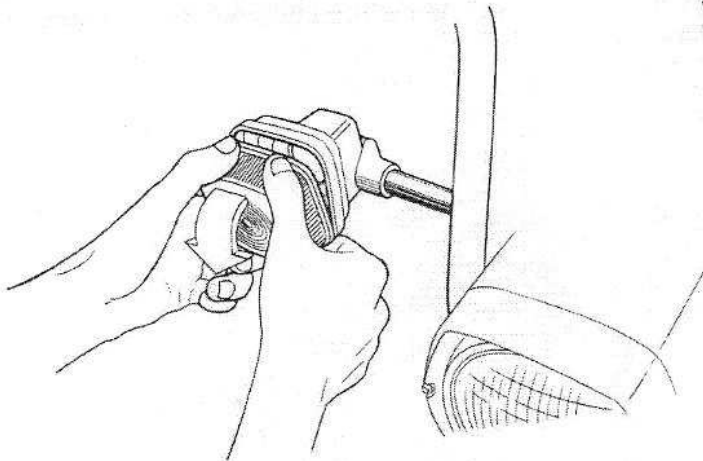




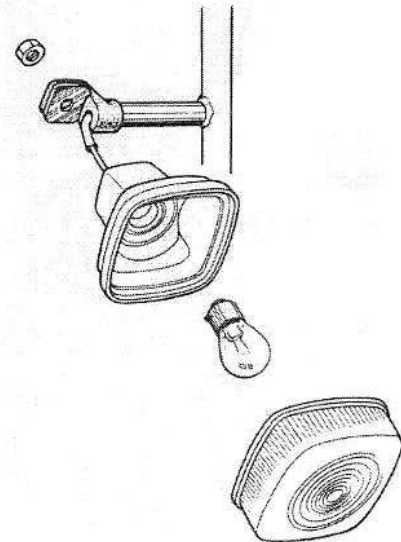
### TURN SIGNAL

**NOTE**

20 - 40 kg-cm  
(1.4 - 2.9 ft-lbs)



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



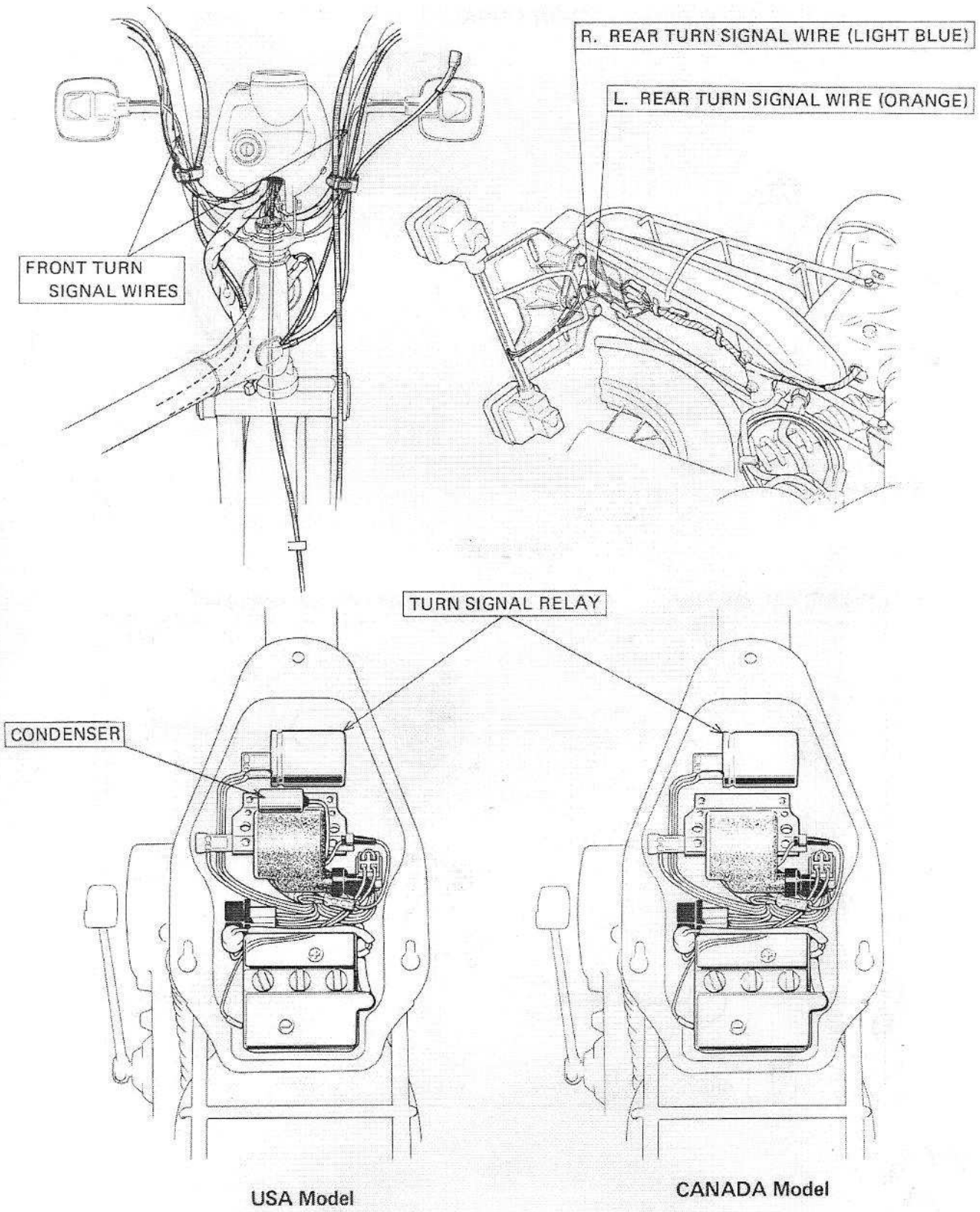
### CONTINUITY

#### 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

<b>DIMENSIONS</b> 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.)
<b>FRAME</b> 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 <sup>2</sup> (21 psi.) 2.25 - 14 (4 PR) 2.0kg/cm <sup>2</sup> (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)
<b>ENGINE</b> 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><b>DRIVE TRAIN</b></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><b>ELECTRICAL</b></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>





# HONDA NC50

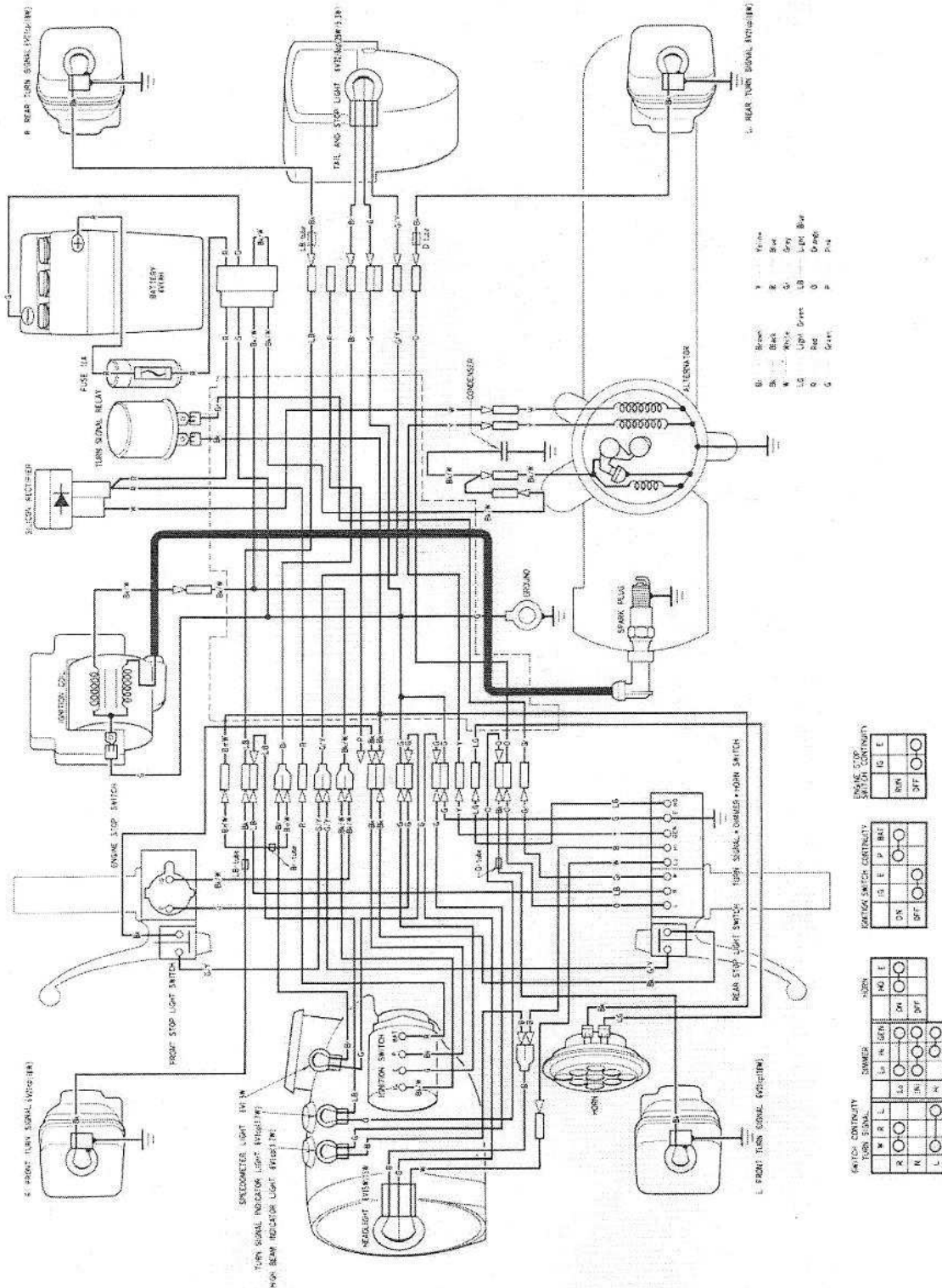
## '80 ADDENDUM

## WIRING DIAGRAM

7

0030Z-147-9800

CANADA model





### 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.

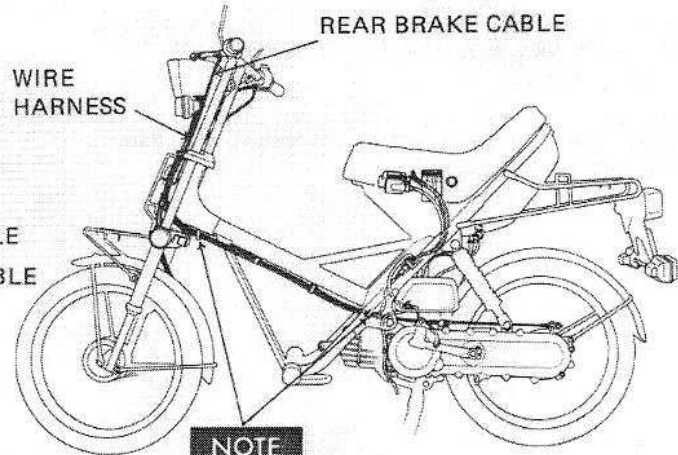
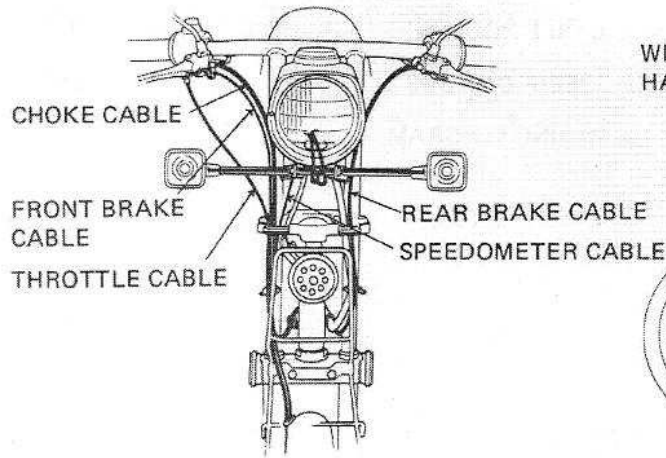
HONDA MOTOR CO., LTD.  
Service Publications Office

### TABLE OF CONTENTS

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

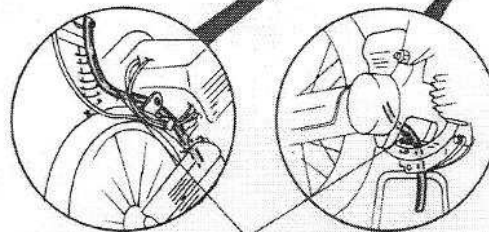
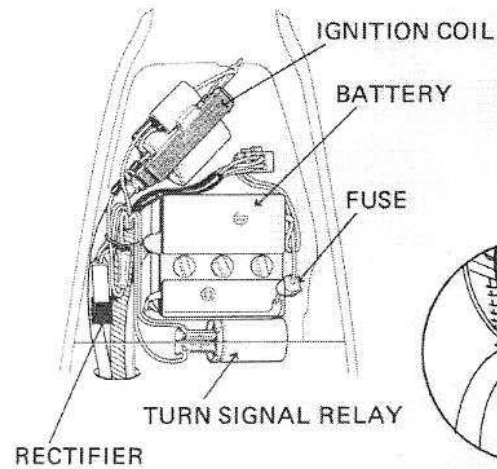
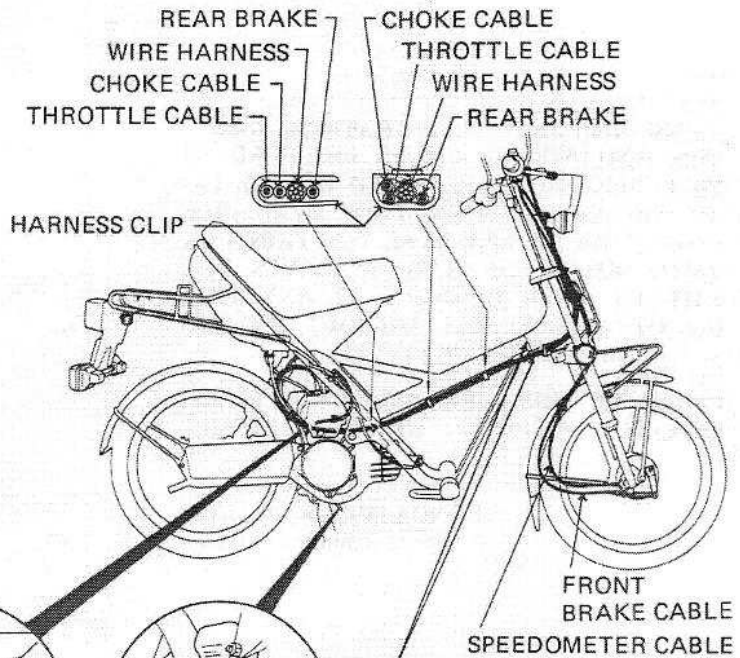
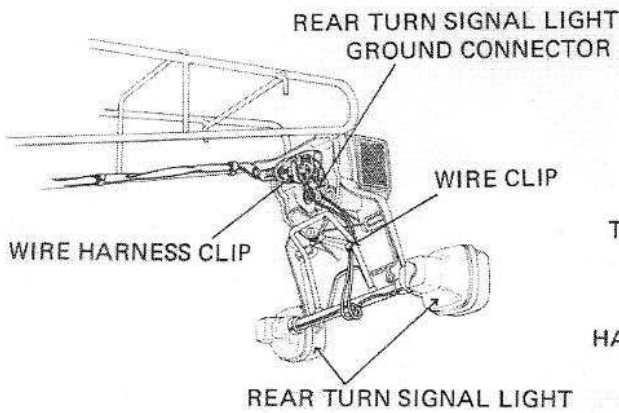
# CABLE ROUTING

'80 ADDENDUM



**NOTE**

Make sure the cables and harness are not twisted.



**NOTE**

Align the white cable mark with the frame coupler.



# SPECIFICATIONS

<p><b>DIMENSIONS</b></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><b>FRAME</b></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/cm<sup>2</sup>)</p> <p>2.25 - 14 - 4PR 32 psi (2.25kg/cm<sup>2</sup>)</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><b>ENGINE</b></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><b>DRIVE TRAIN</b></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><b>ELECTRICAL</b></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>



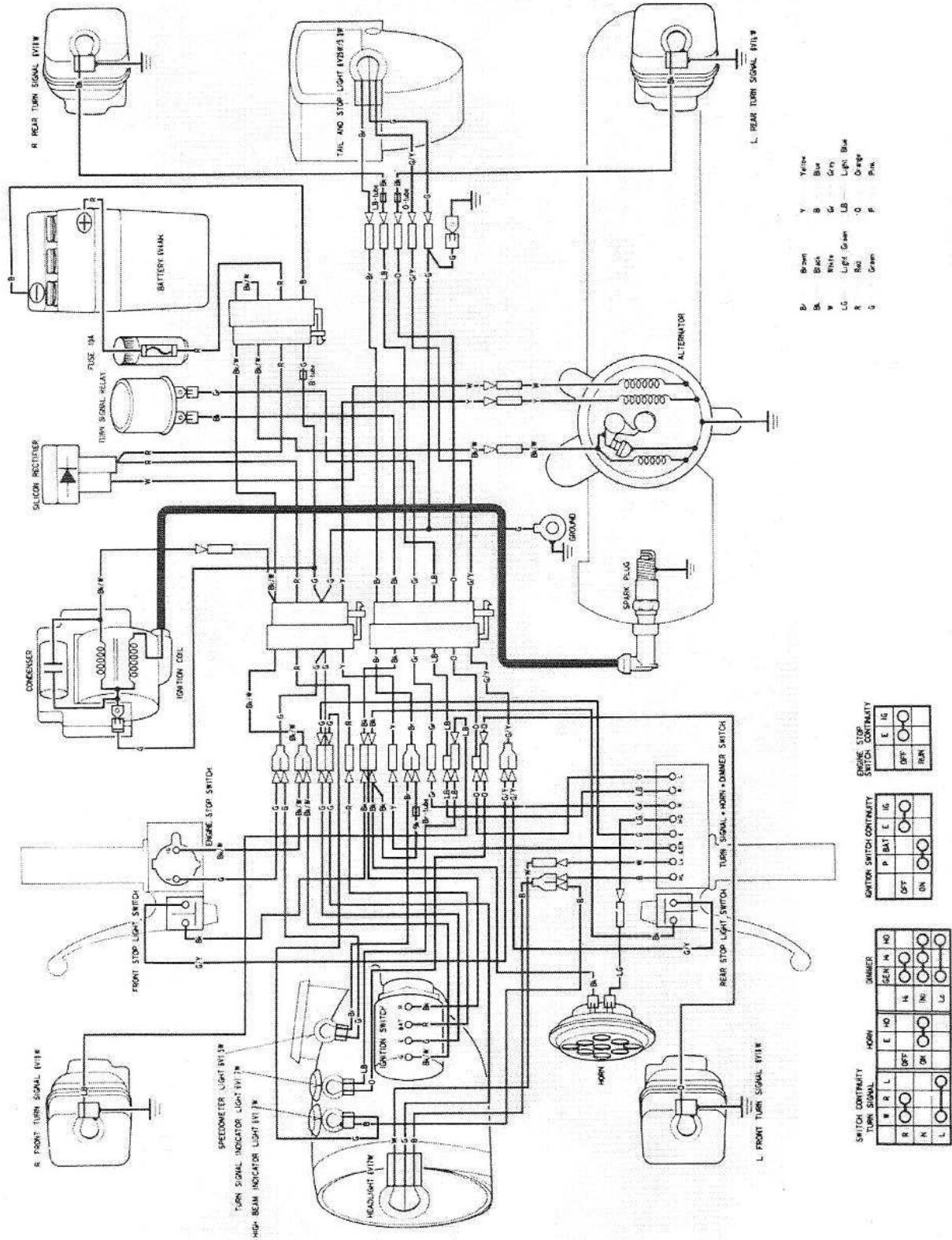
# HONDA NA50

'80 ADDENDUM

# WIRING DIAGRAM

3

## NA50 - A TYPE



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

0030Z - 147 - 7700

ENGINE STOP CONTINUITY SWITCH	
E	IG
OFF	ON

IGNITION SWITCH CONTINUITY	
P	BAT
OFF	ON

SWITCH CONTINUITY	
TURN SIGNAL	
R	L
OFF	ON
HORN	
HO	NO
DIMMER	
GEN	HO
NO	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**

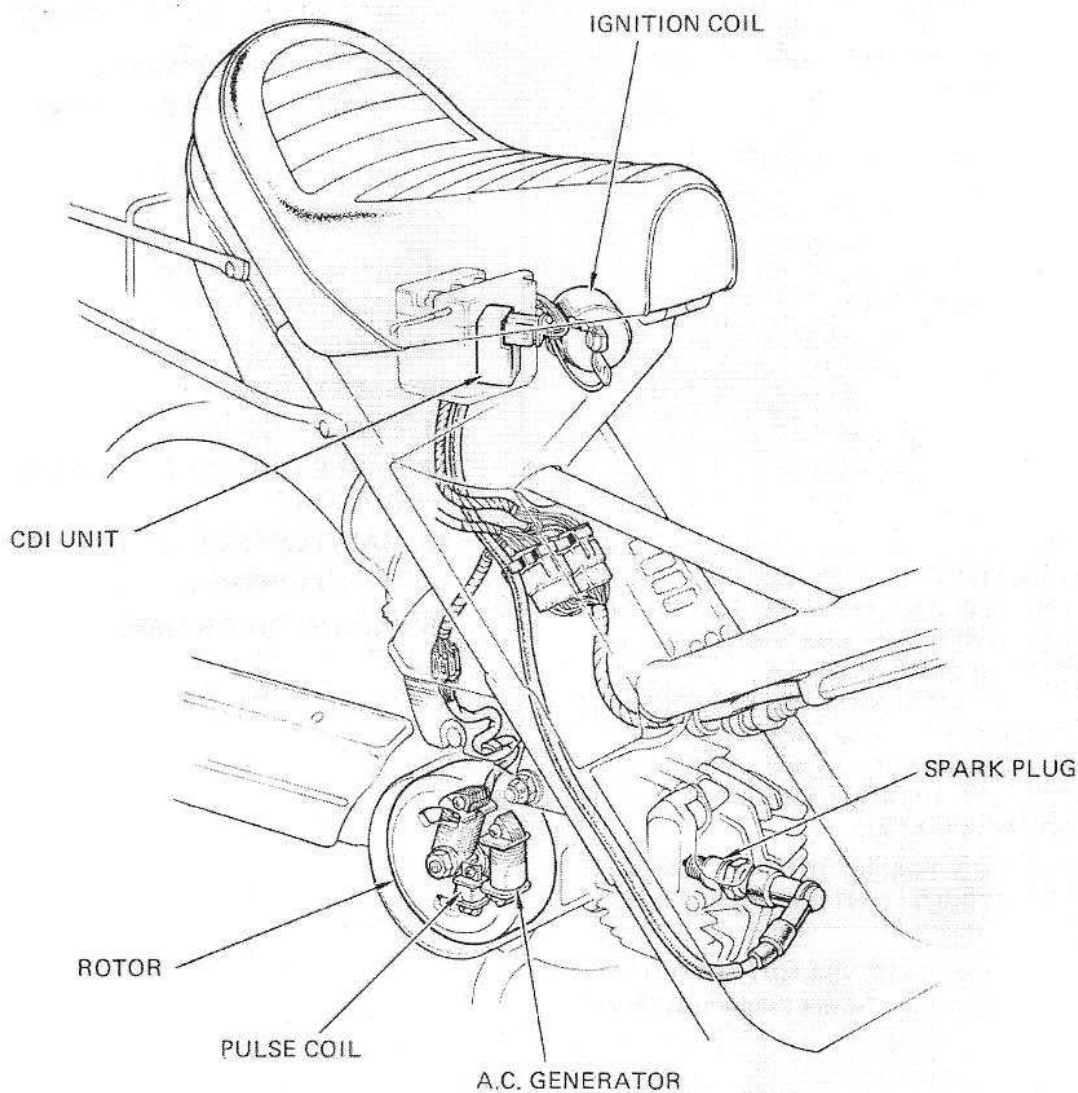
- 1. CAPACITOR DISCHARGE IGNITION..... 31-2
- 2. AUTOMATIC CHOKE ..... 31-4
- 3. NA50 TWO-SPEED AUTOMATIC TRANSMISSION..... 31-6

**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

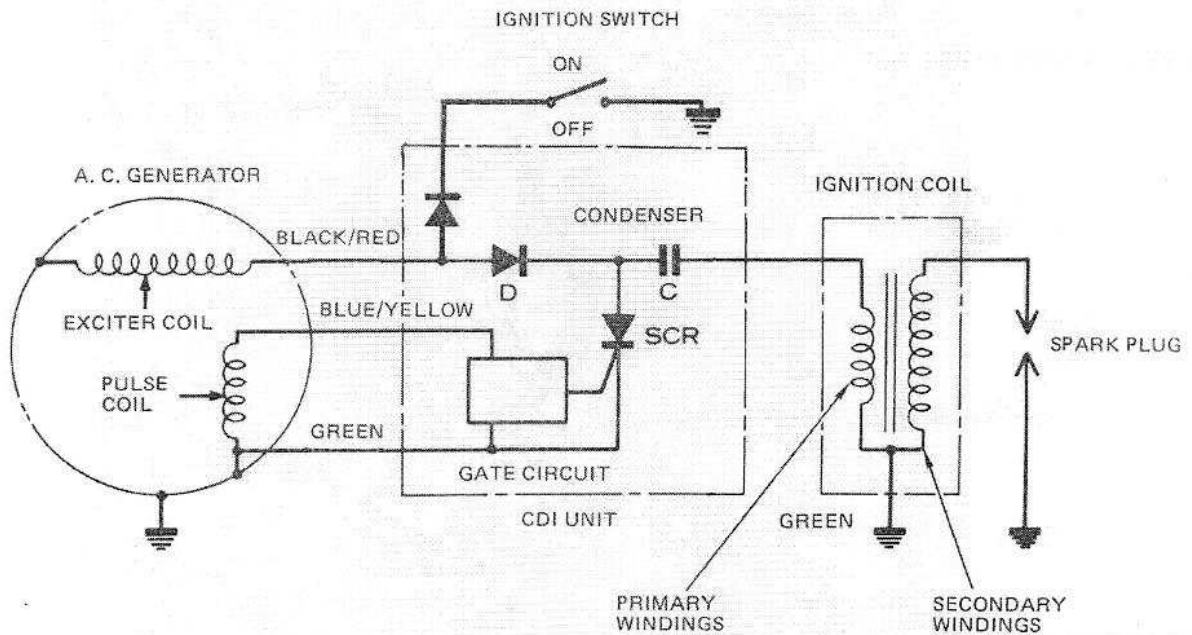
# 1. CAPACITOR DISCHARGE IGNITION

## • 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

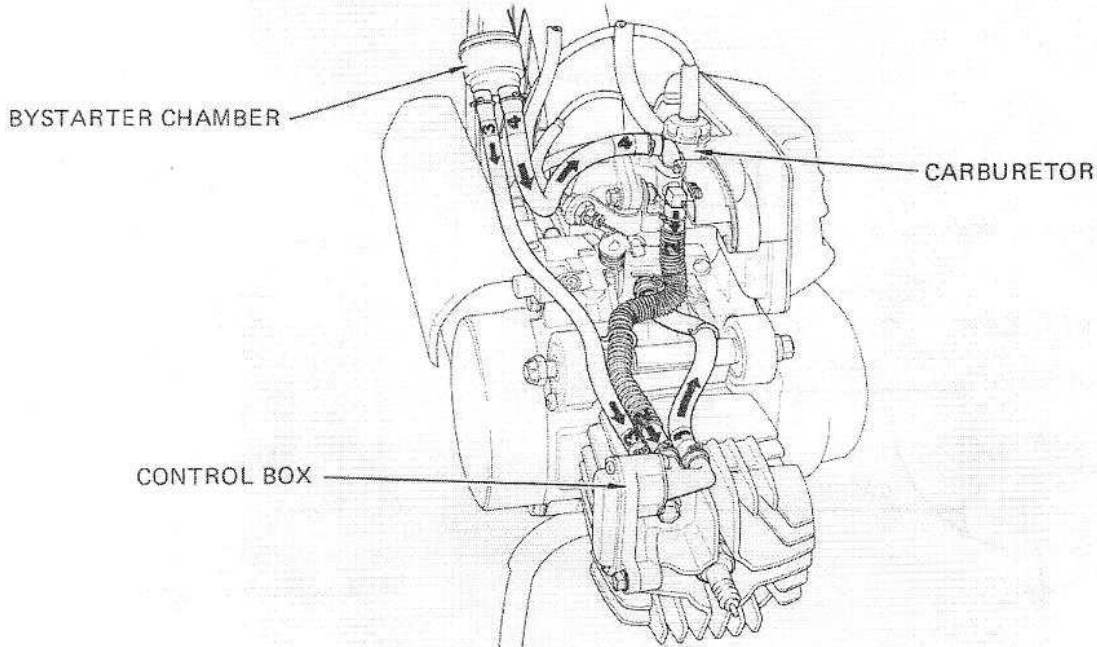
A.C. voltage is induced when the rotor magnets pass the exciter coil. The positive half of the A.C. wave passes through the CDI unit diode D to charge the condenser C. The condenser cannot discharge through the magneto because the diode allows current to pass in one direction only.

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.

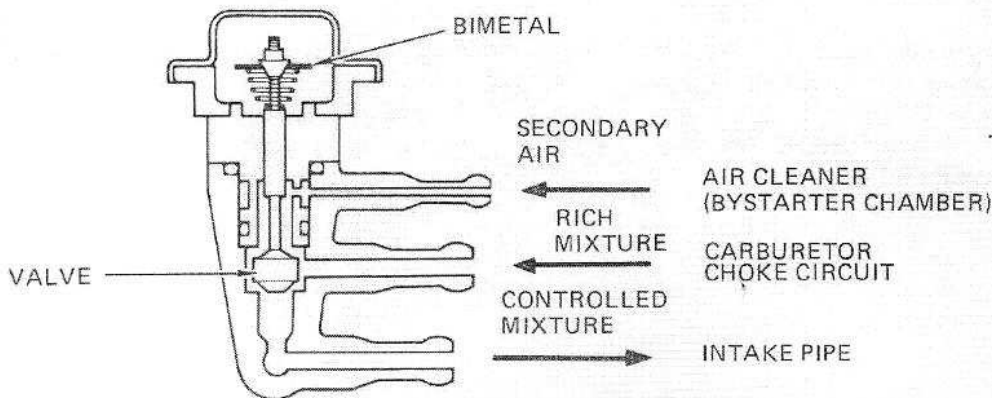


### BYSTARTER CHAMBER

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.



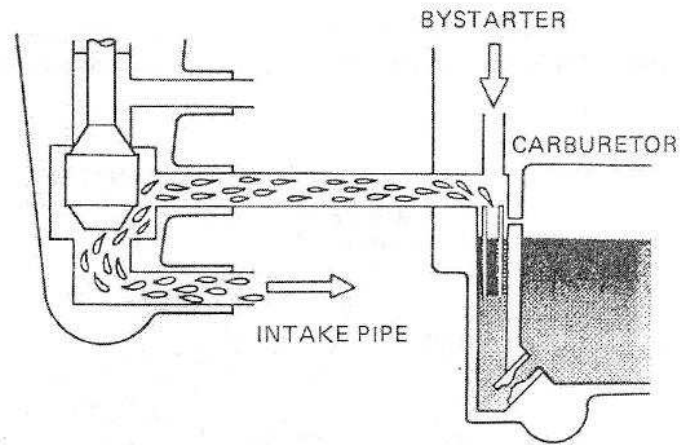


**OPERATION**

This how the automatic choke system works.

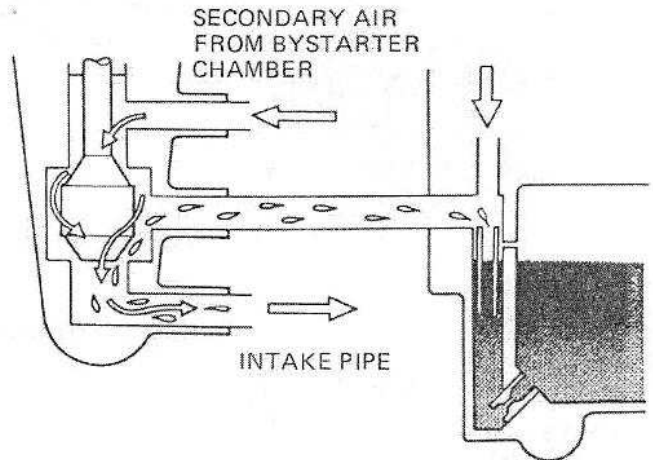
**BELOW 10° C (50° F)**

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.



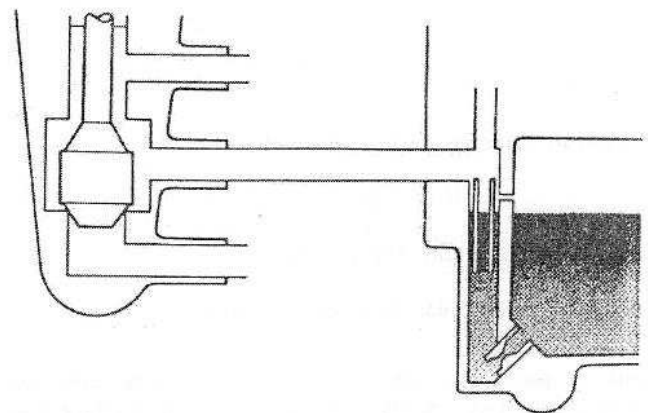
**BETWEEN 10° C (50° F) and 46° C (115° F)**

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)**

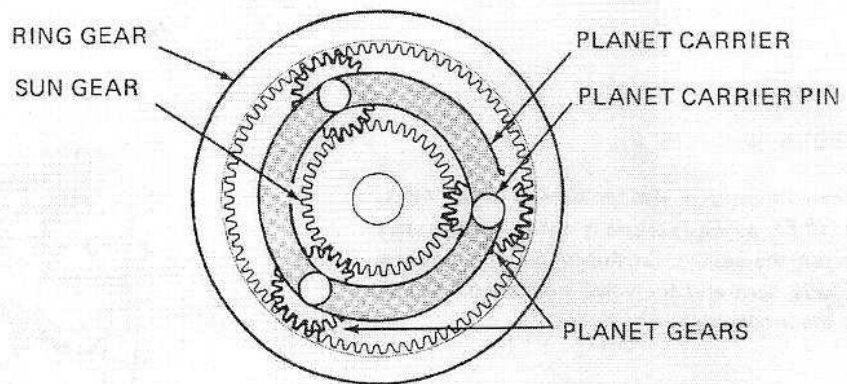
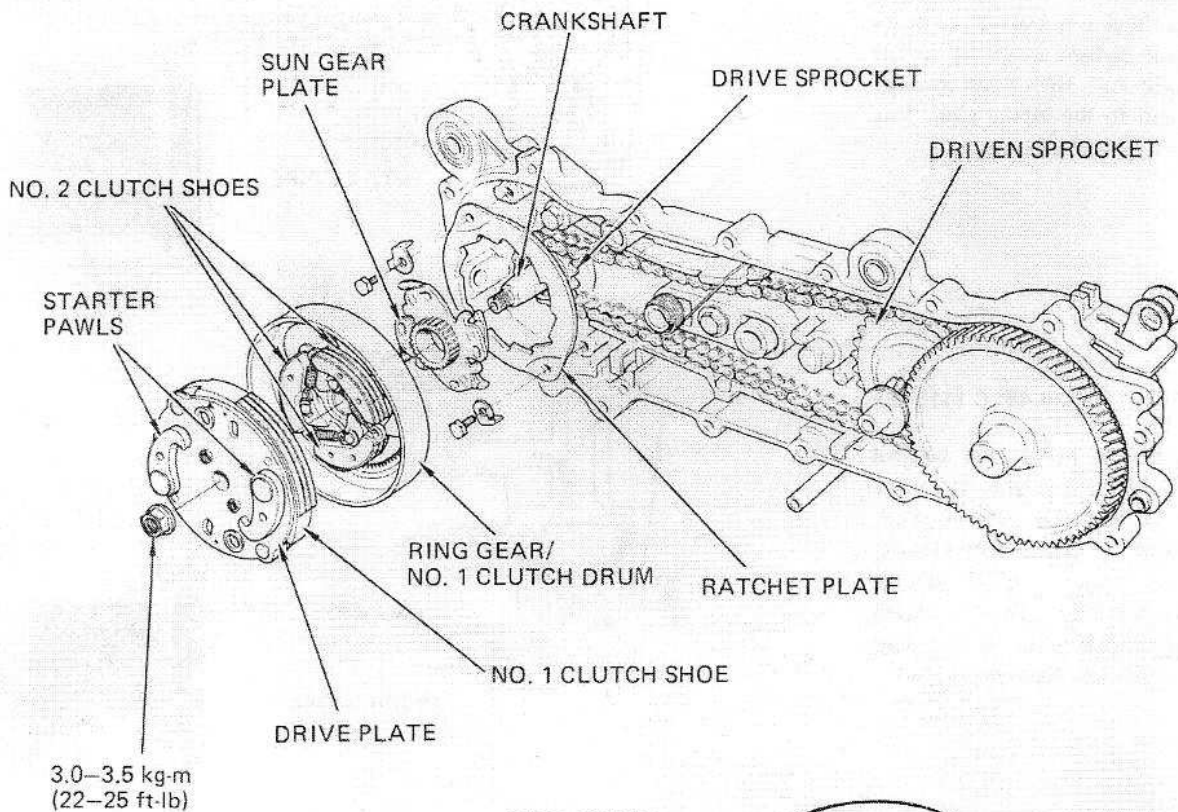
When the engine temperature is above 46° C (115° F), a rich mixture is not needed to start or run the engine. So the control box bimetal is fully bent and the valve blocks the fuel line to the intake pipe.





# 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:

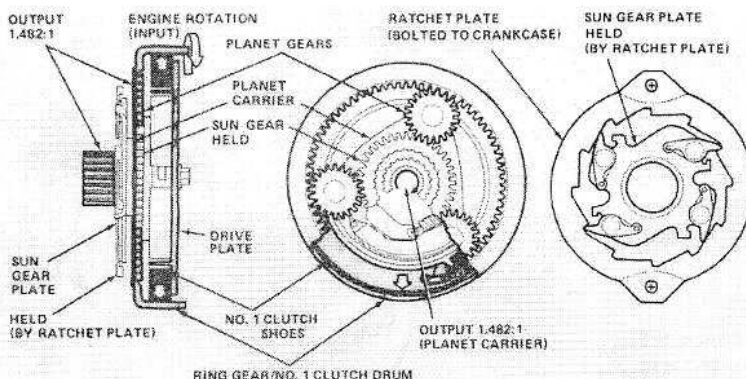
- The sun gear (in the center).
- The ring gear (around the outside).
- The planet gears/planet carrier assembly.

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.

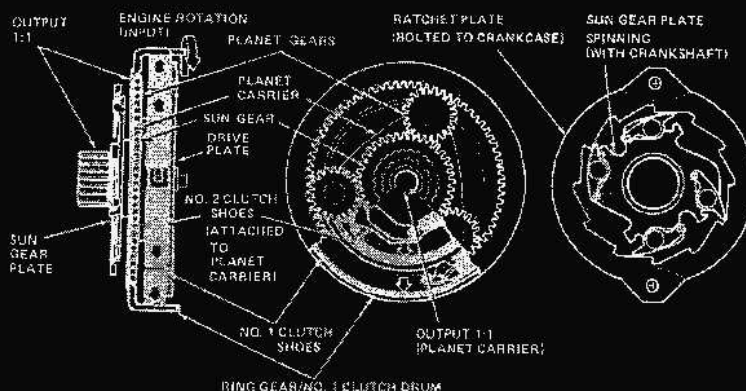
This forces the *planet gears* to walk around the sun gear which in turn, tries to rotate in the opposite direction of the ring

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

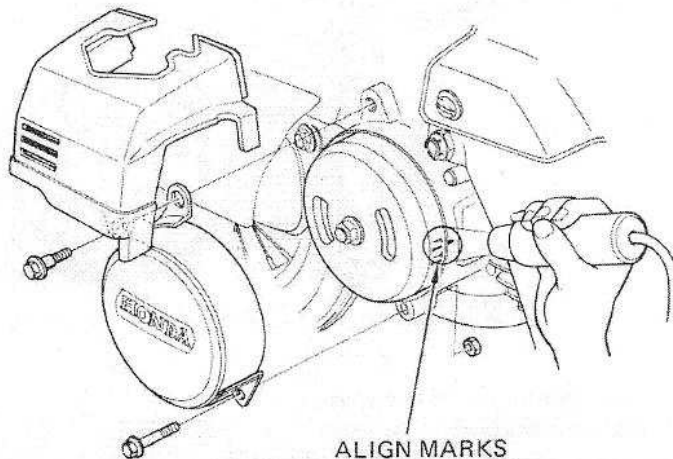
Ignition timing is correct if the index mark aligns with the "F" mark ( $\pm 3^\circ$ ) at 2,000 rpm.

**NOTE**

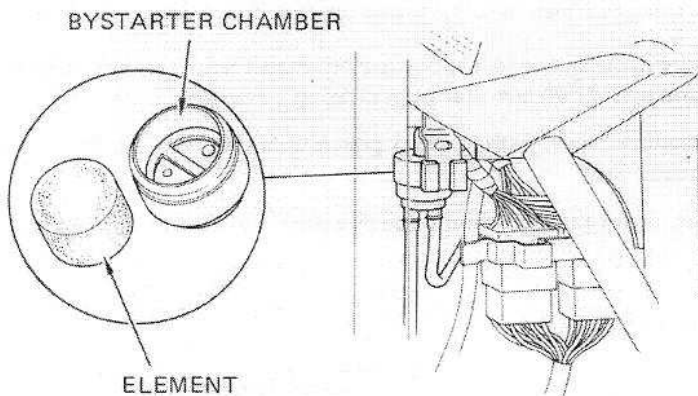
Use the HONDA GENUINE SERVICE TESTER (07308-0070000) to check the ignition timing.

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.



## BYSTARTER ELEMENT CLEANING

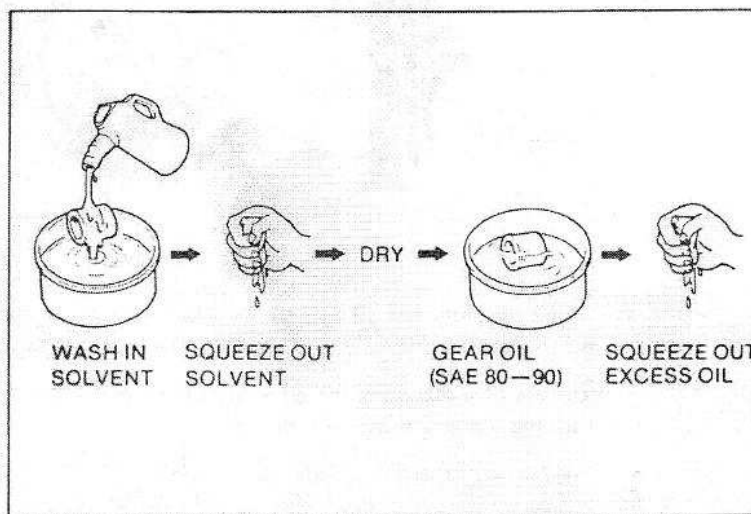


Remove the element from the bystarter chamber.

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

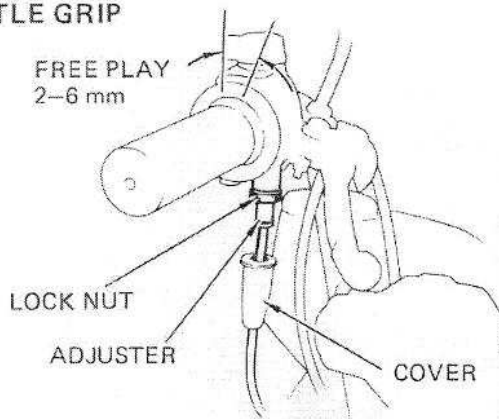
Soak the element in gear oil (SAE 80-90) and squeeze out excess.

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**

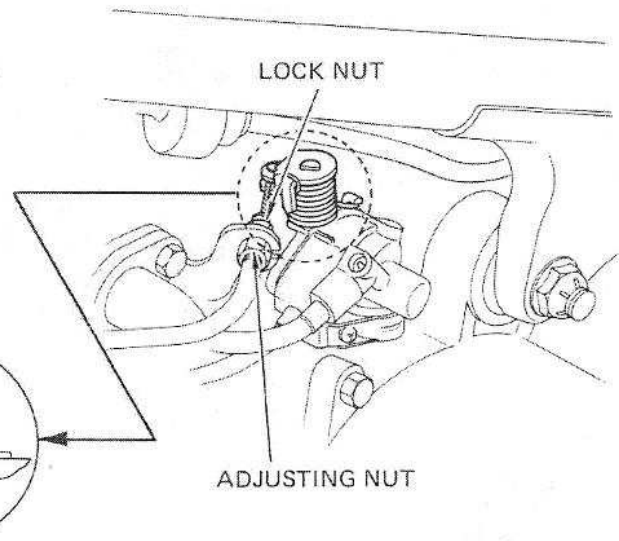
**NOTE**

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

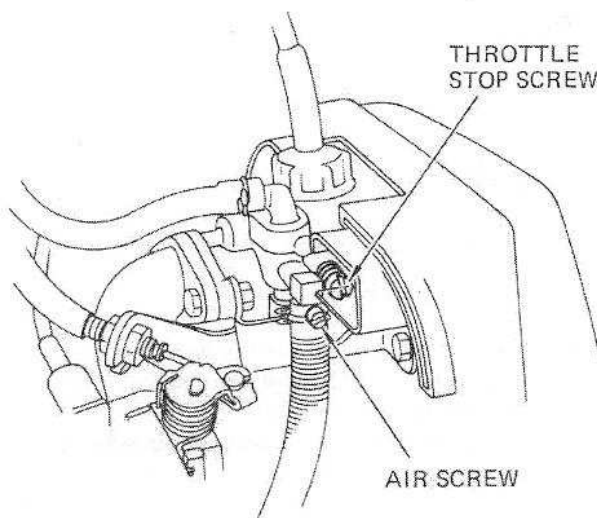
Close the throttle grip.

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.

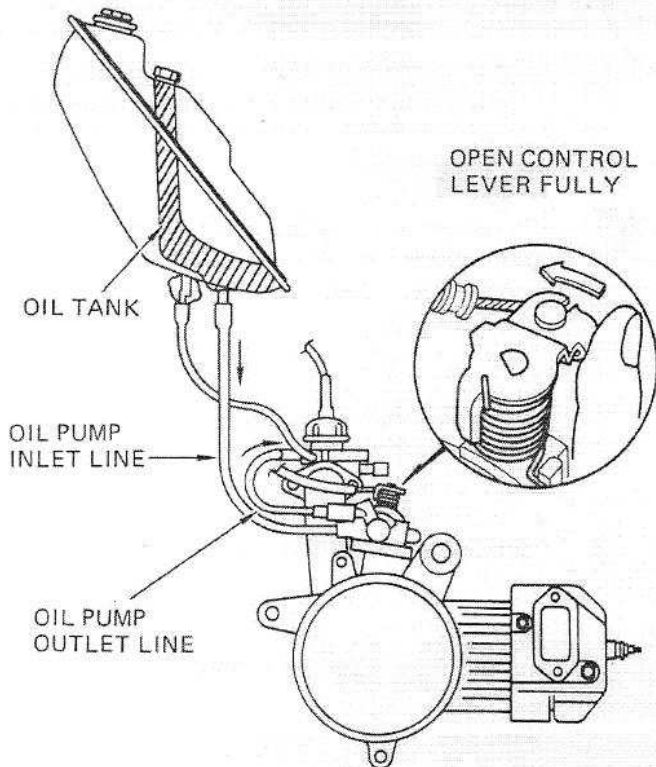
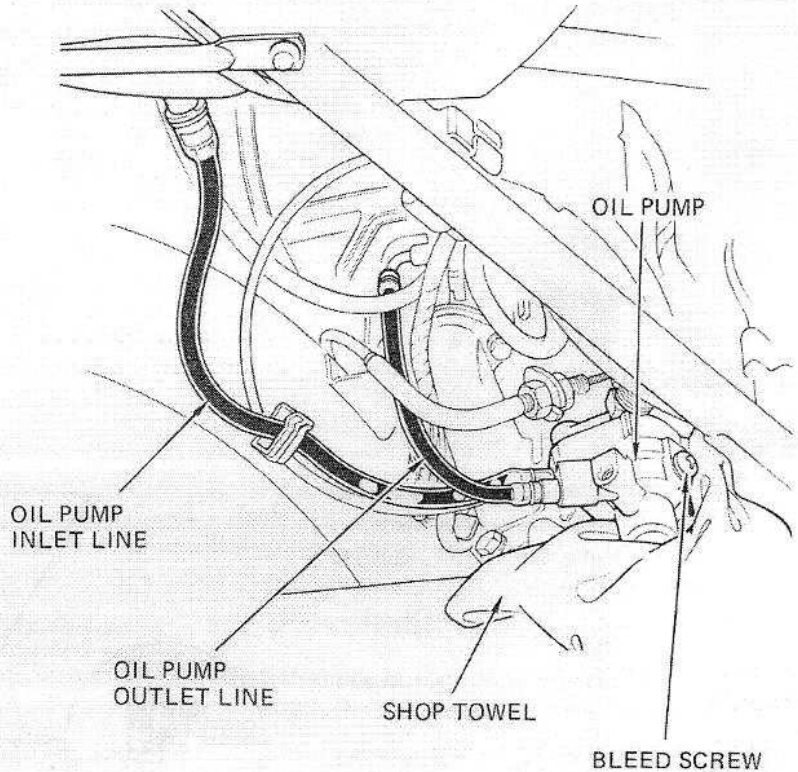
**OIL PUMP BLEEDING/PRIMING**
**NOTE**

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.

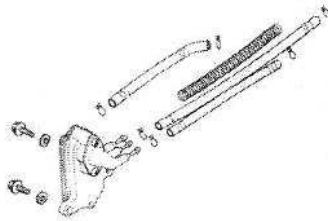
Hold the pump open until all air bubbles are gone.



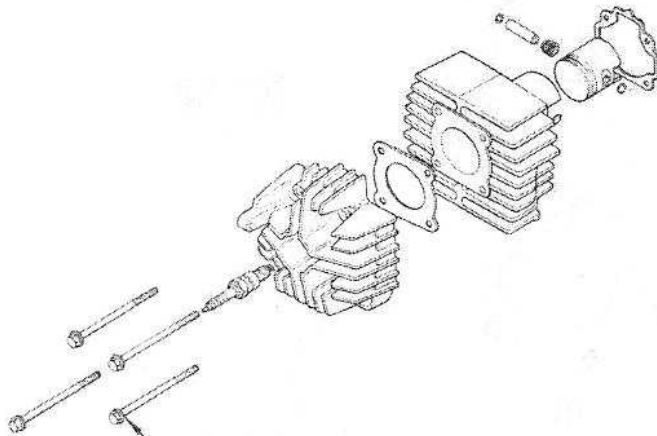
## 5. CYLINDER HEAD/ CYLINDER/PISTON

### CONTROL BOX

Do not disassemble the control box assembly.



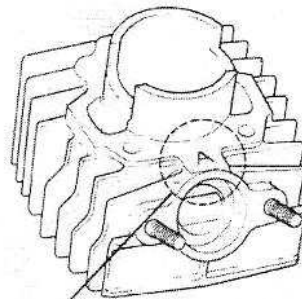
Clean the cylinder and control box mating surfaces before assembly.



0.8—1.2 kg-m  
(5.8—8.7 ft-lb)

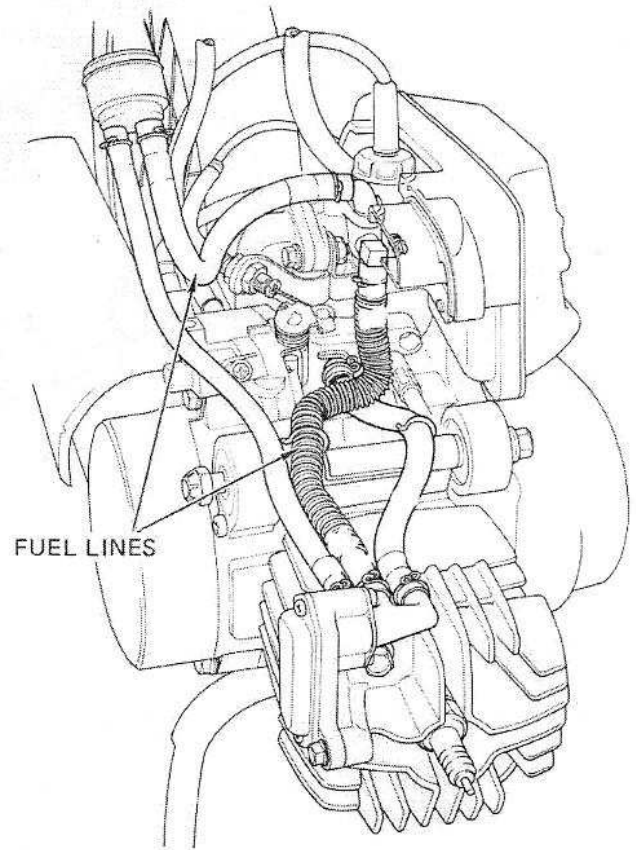
### CYLINDER REPLACEMENT

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



A or B

### FUEL LINES ROUTING

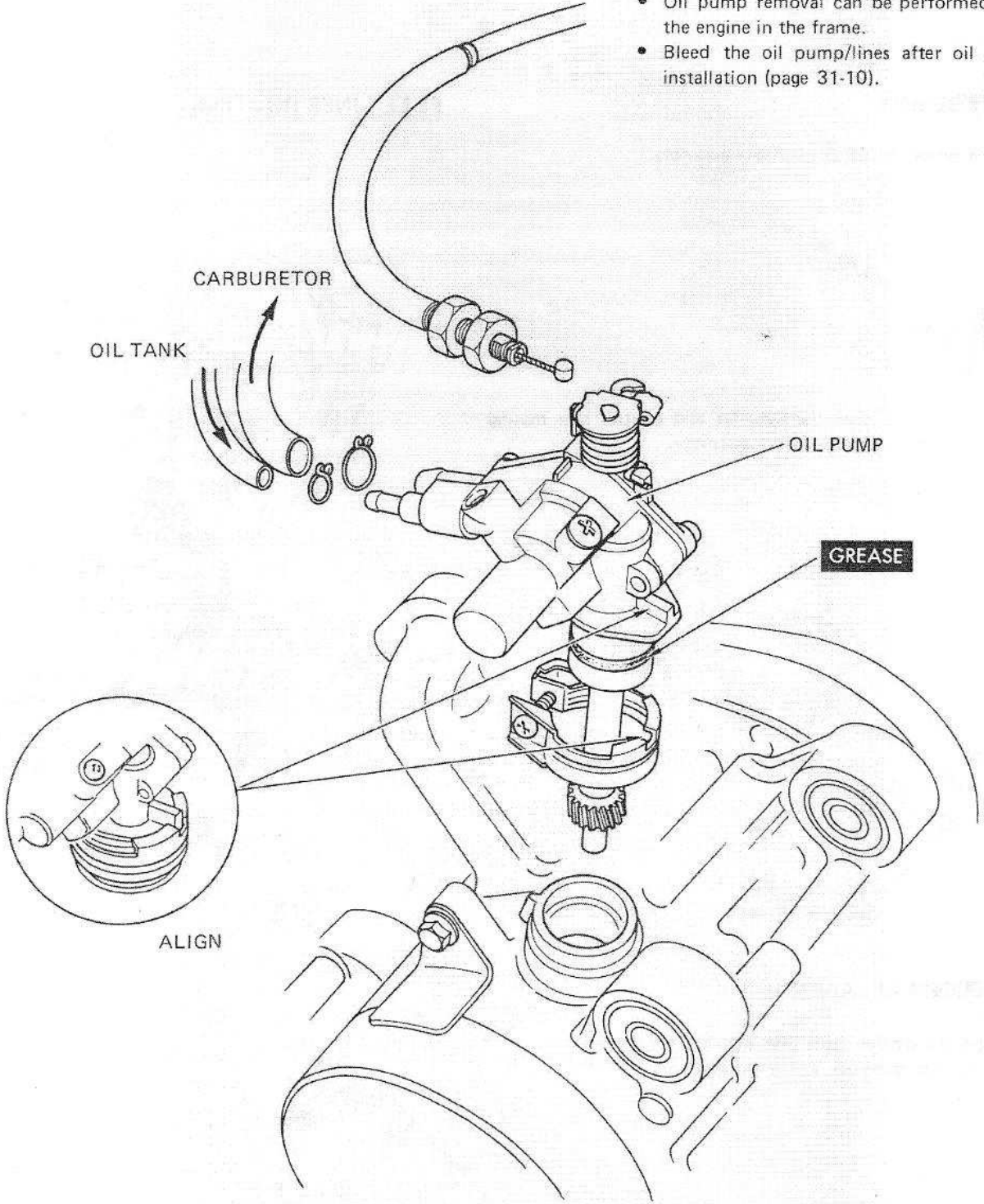




# 6. OIL PUMP

**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

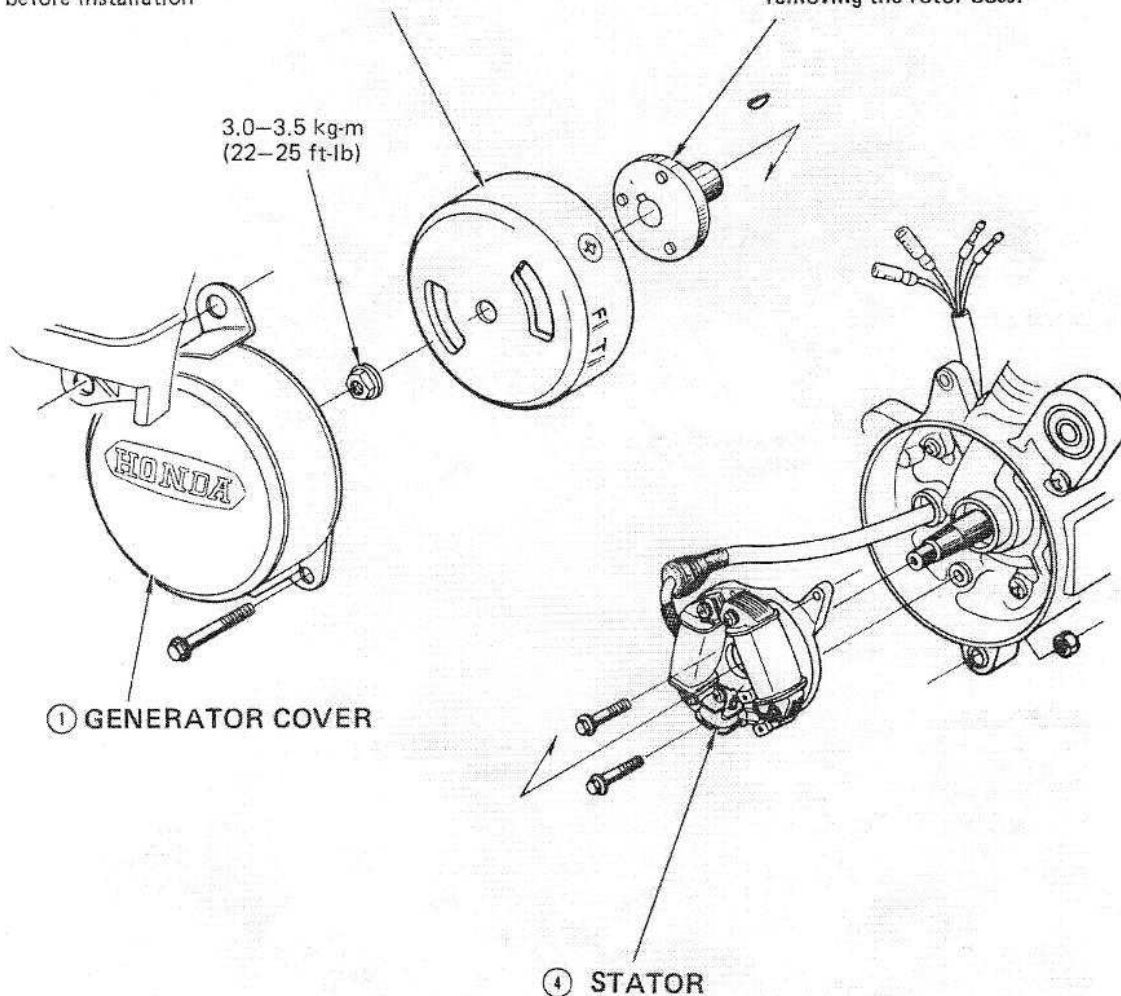
**NOTE**

Remove any metal filings from the flywheel before installation

### ③ ROTOR BOSS

**CAUTION**

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



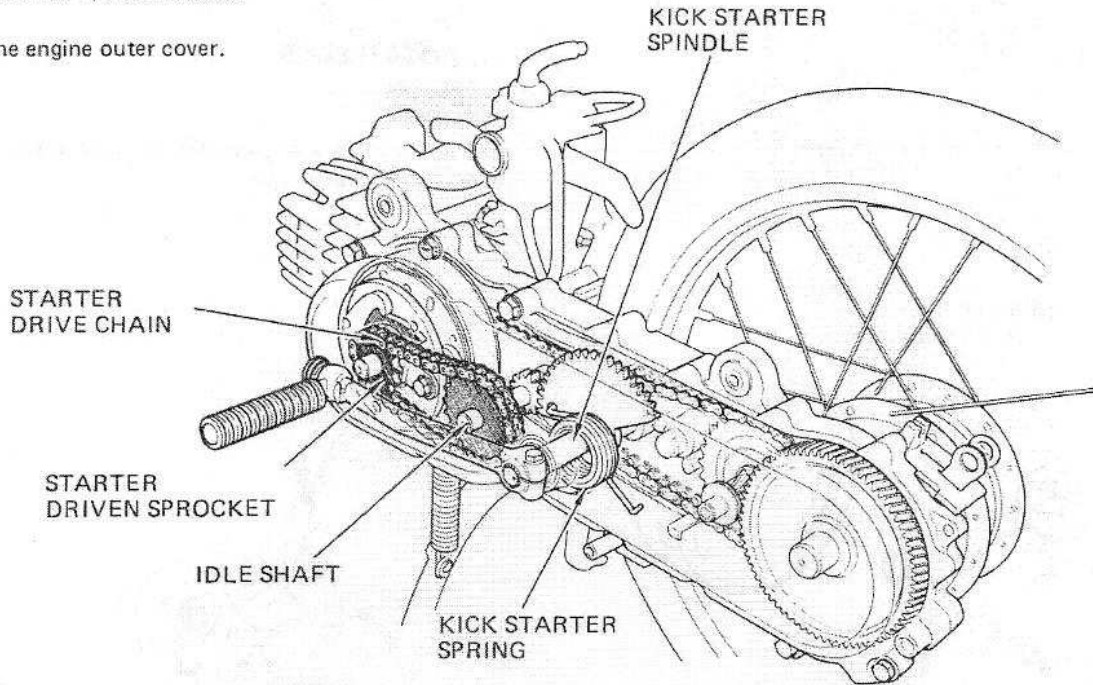
**NOTE**

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

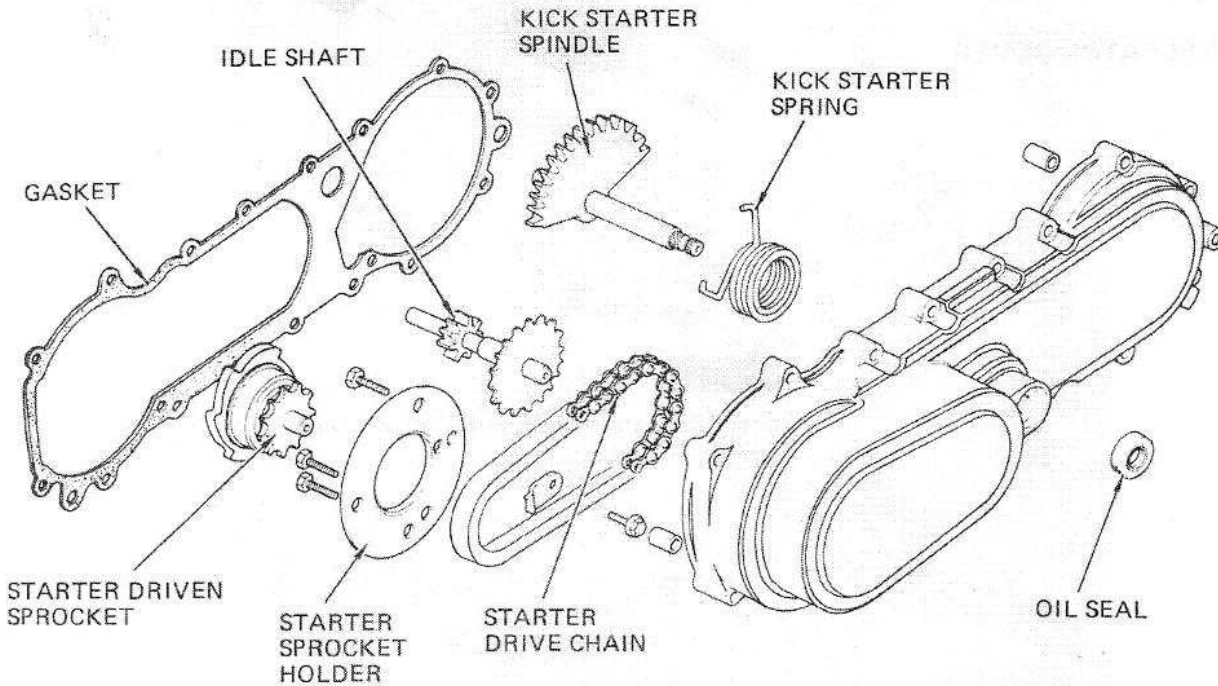
# 8. KICK STARTER

## 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.

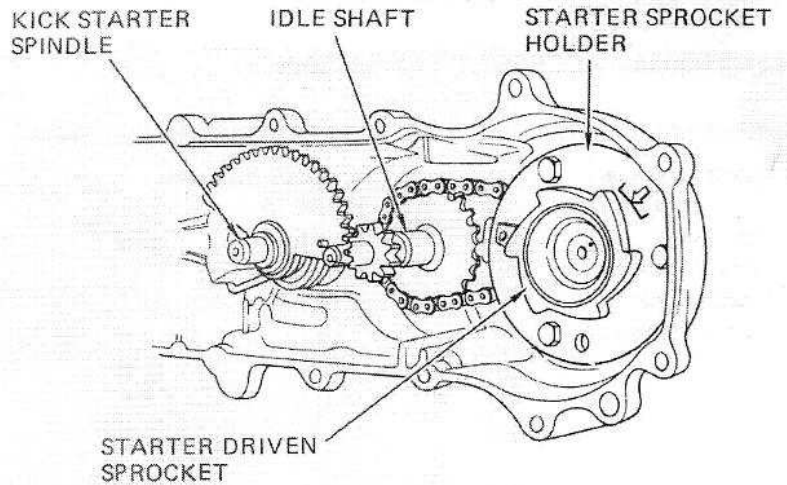
Install the kick starter pedal onto the spindle.

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)

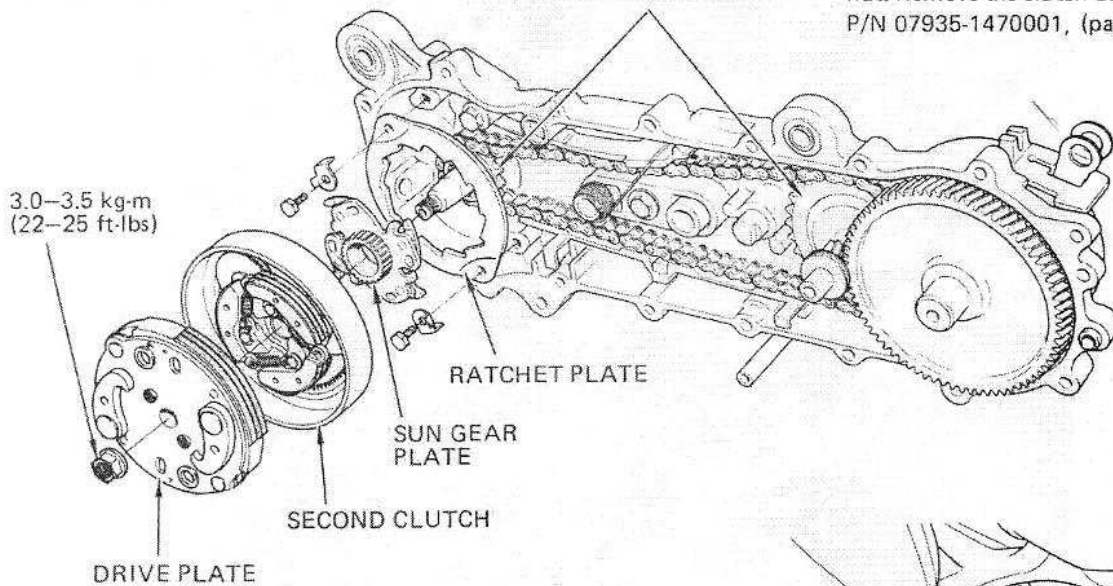


## 9. CLUTCH

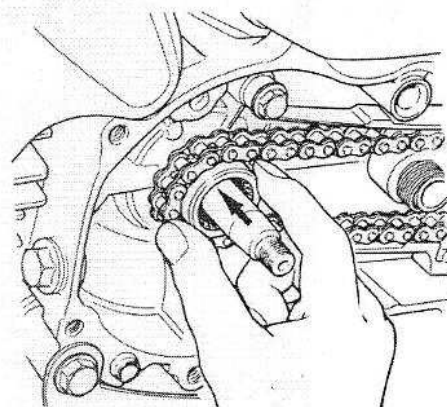
### DISASSEMBLY/ASSEMBLY

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

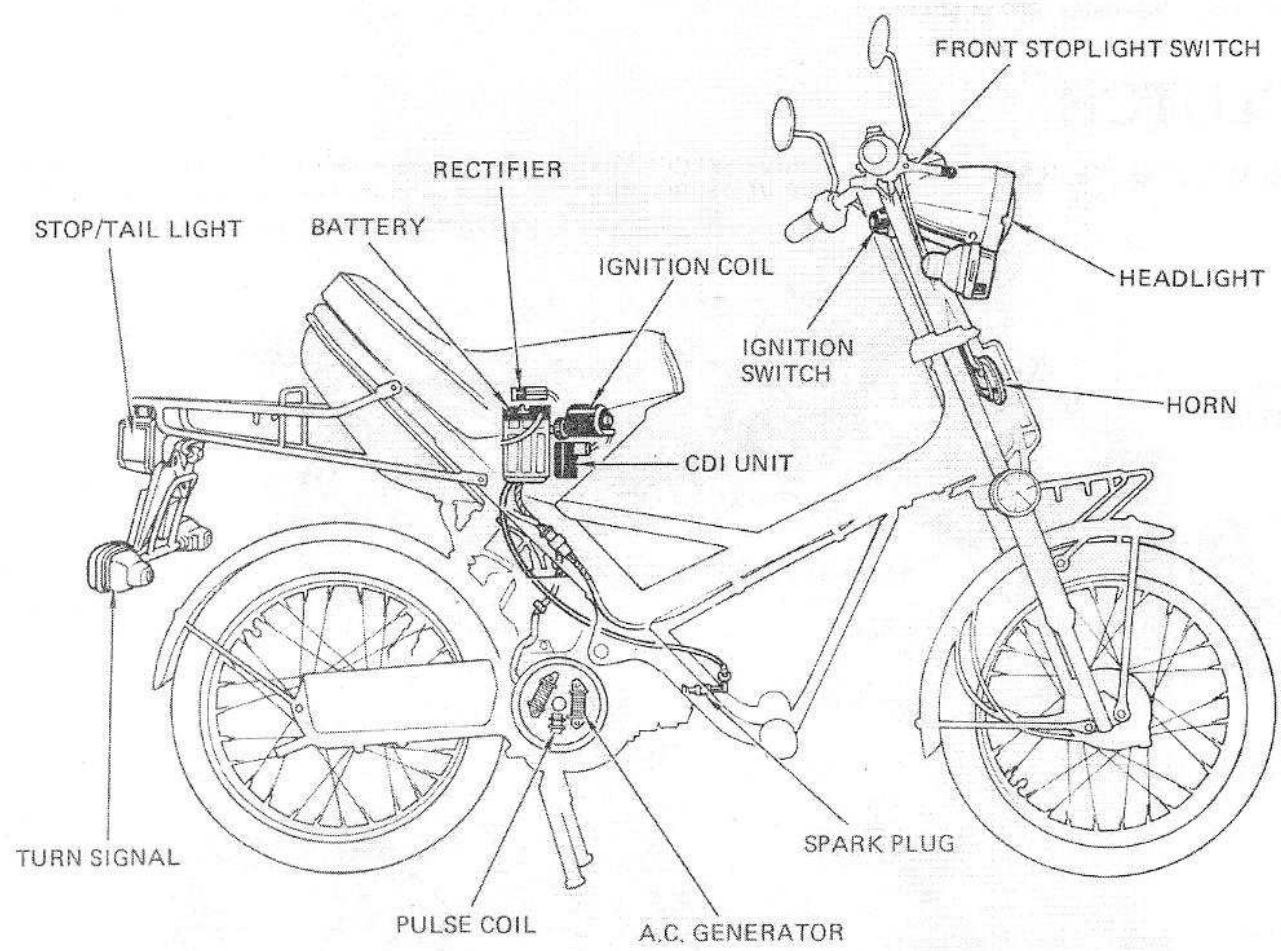
- IGNITION COIL
- A. C. GENERATOR
- CDI UNIT
- SPARK PLUG
- PULSE COIL
- IGNITION SWITCH

2. BATTERY/CHARGING SYSTEM

- A. C. GENERATOR
- RECTIFIER
- BATTERY

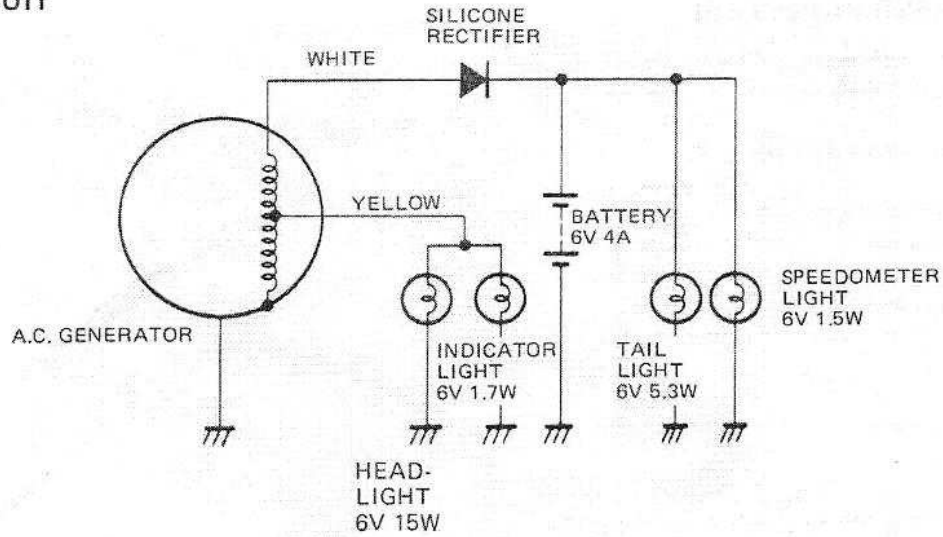
3. LIGHTING SYSTEM AND HORN

- HEADLIGHT
- STOP/TAILLIGHT
- HORN
- TURN SIGNAL

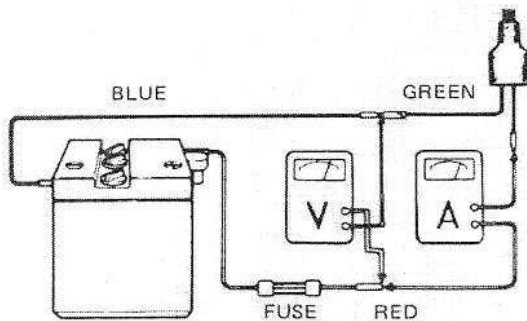




**CHARGING CIRCUIT**



**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.

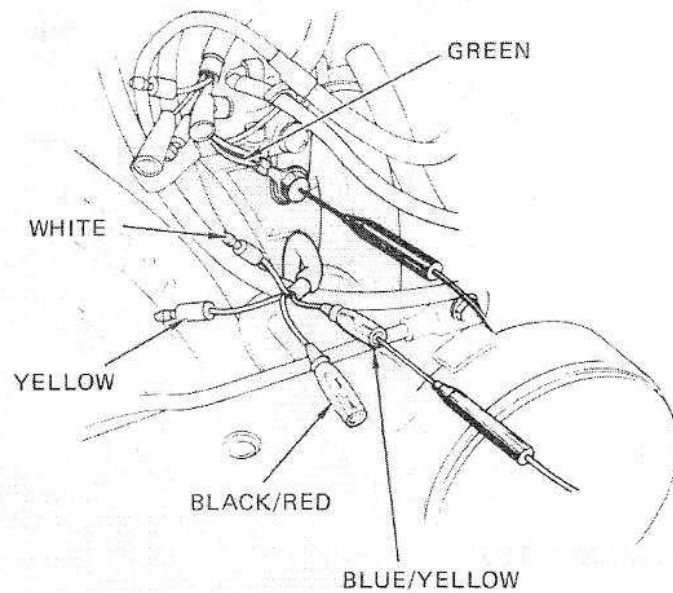
Set the ohmmeter to the RX1 scale.

(X1  $\Omega$ )

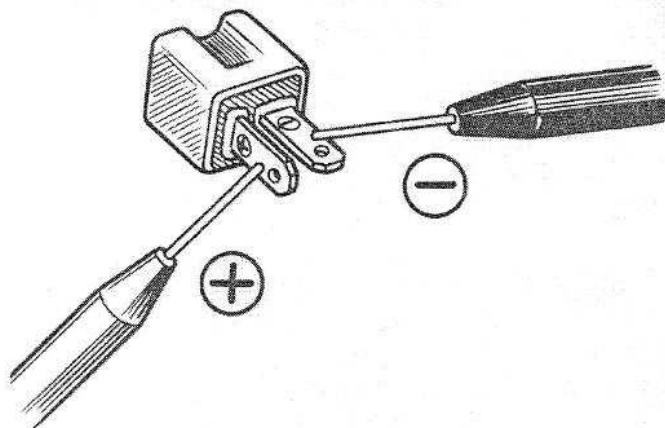
White and engine ground	0.1 – 1.0 $\Omega$
Yellow and engine ground	0.3 – 1.5 $\Omega$
Blue/Yellow and engine ground	10 – 100 $\Omega$
Black/Red and engine ground	50 – 300 $\Omega$

#### NOTE

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



### RECTIFIER INSPECTION



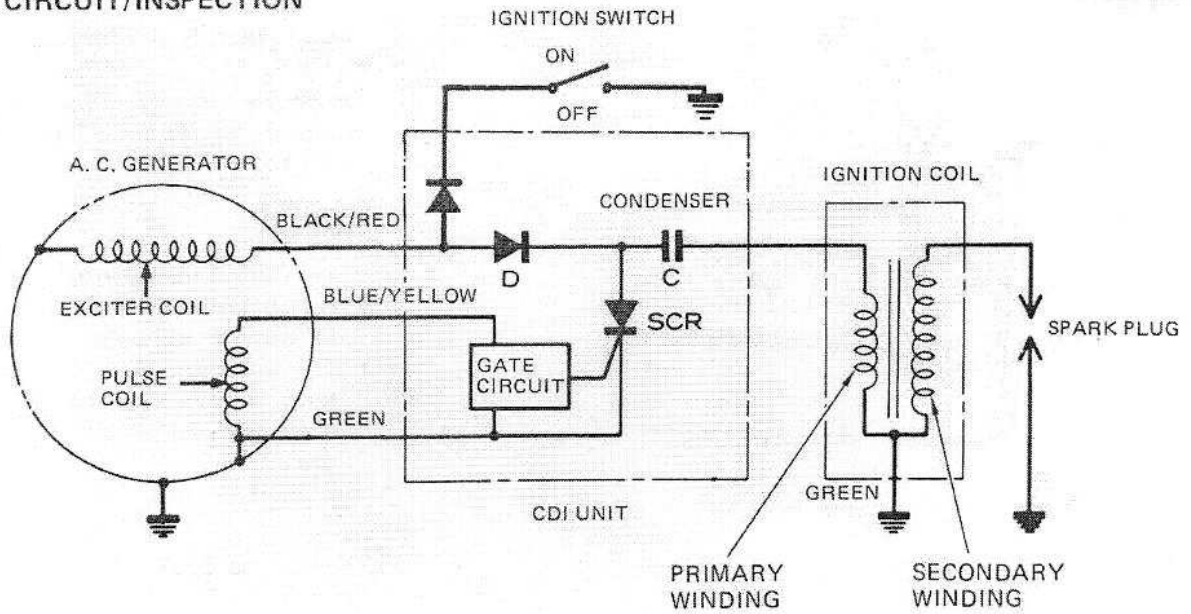
Check the rectifier with an ohmmeter, reversing the test leads once.

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.



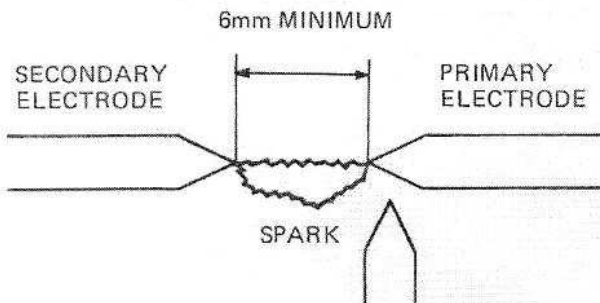
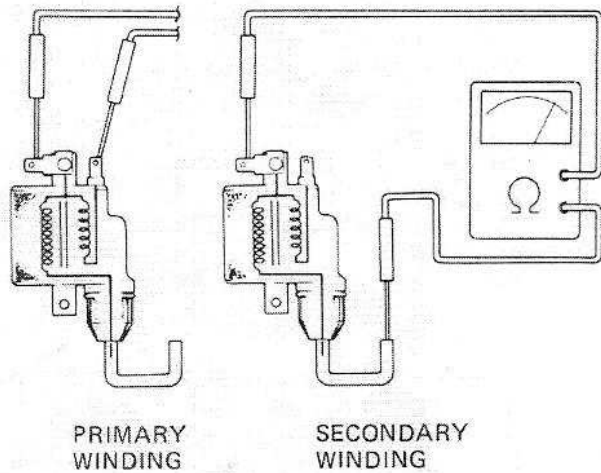
**IGNITION CIRCUIT/INSPECTION**



**IGNITION COIL**

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

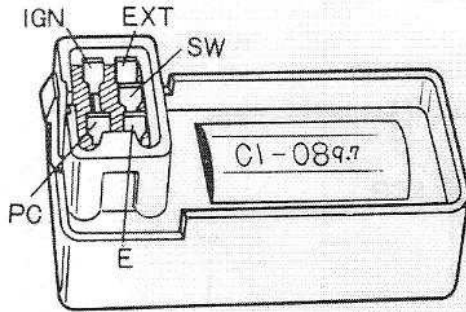
RESISTANCES	
Primary	0.2 - 0.3 Ω
Secondary	3.4 - 4.2k Ω



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:

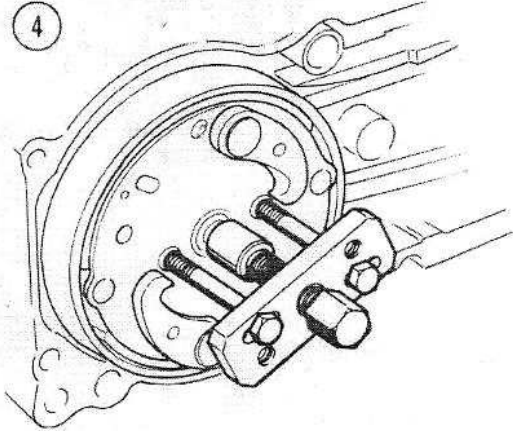
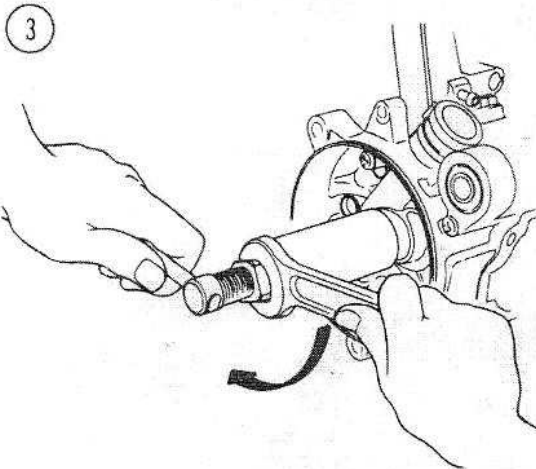
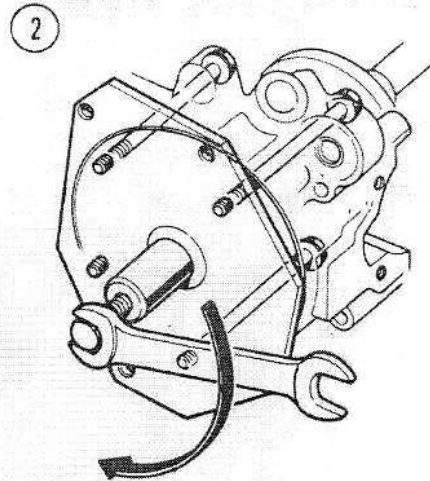
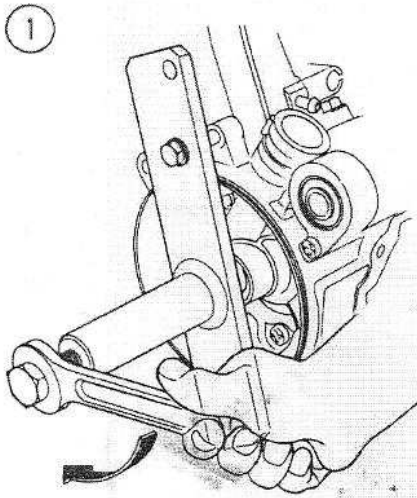
SANWA [SP-10D type] : Xk  $\Omega$

KOWA [TH-5H type] : X100  $\Omega$

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



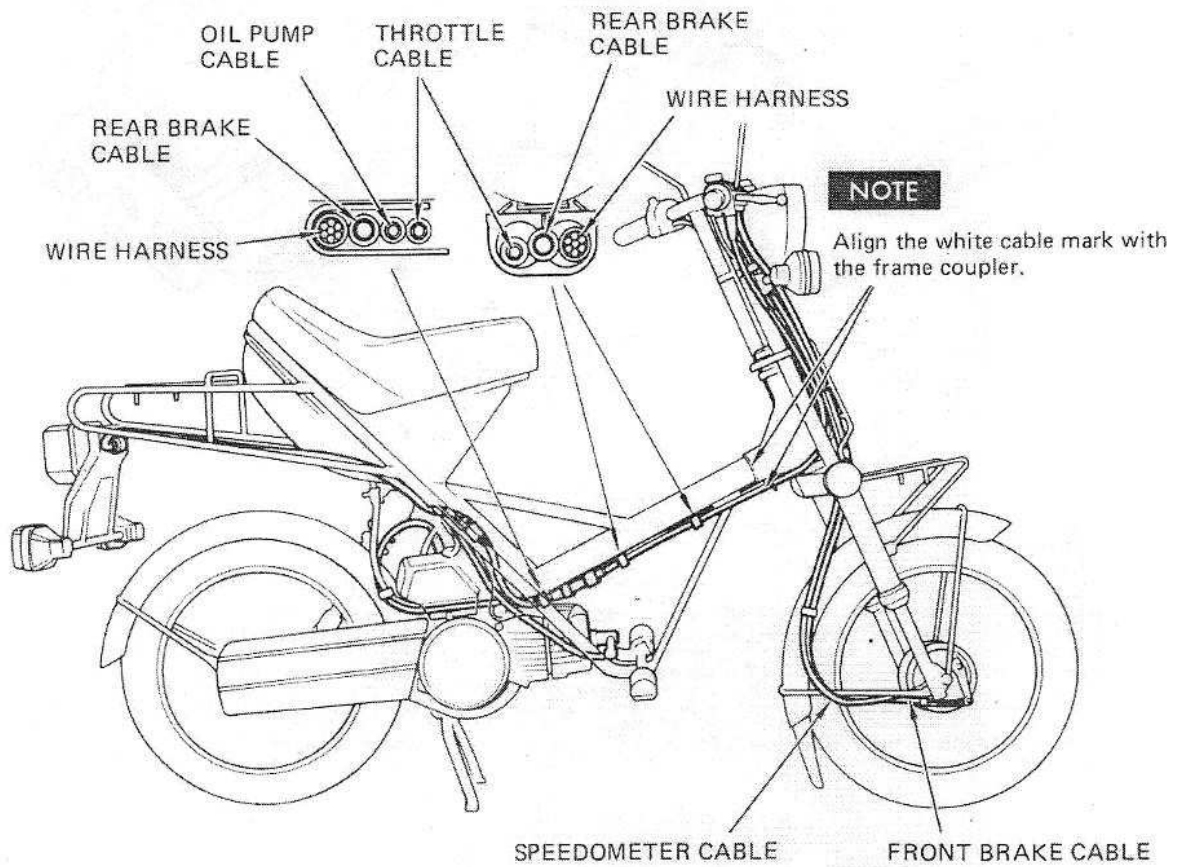
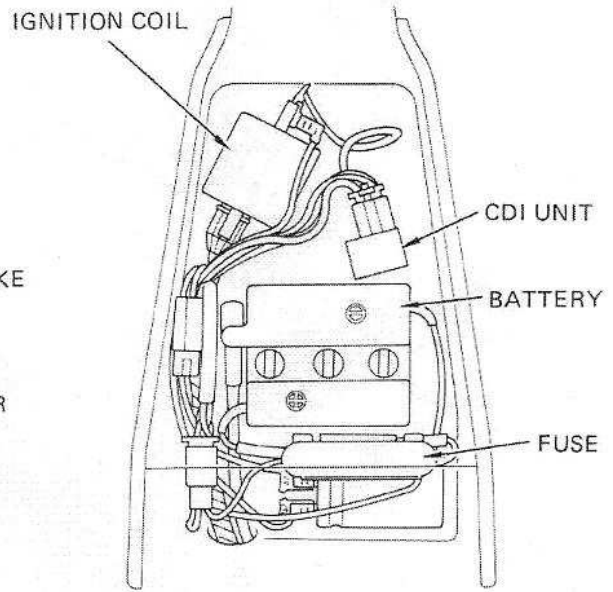
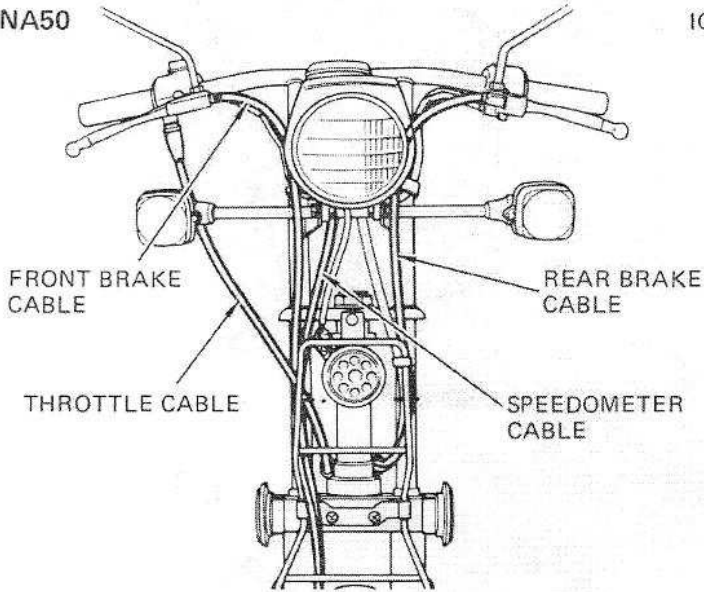
# 11. TOOLS



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

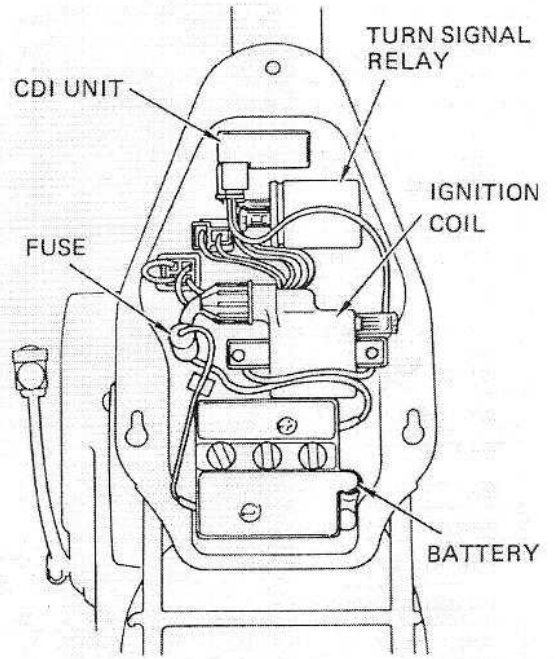
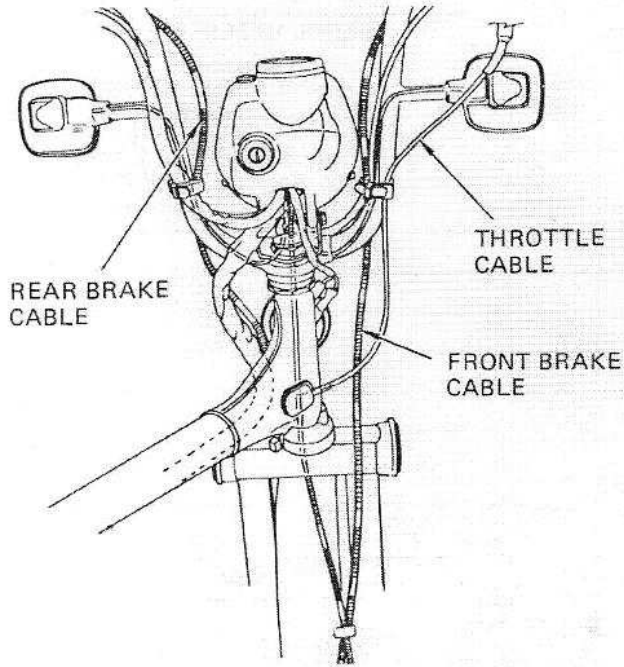
• NA50



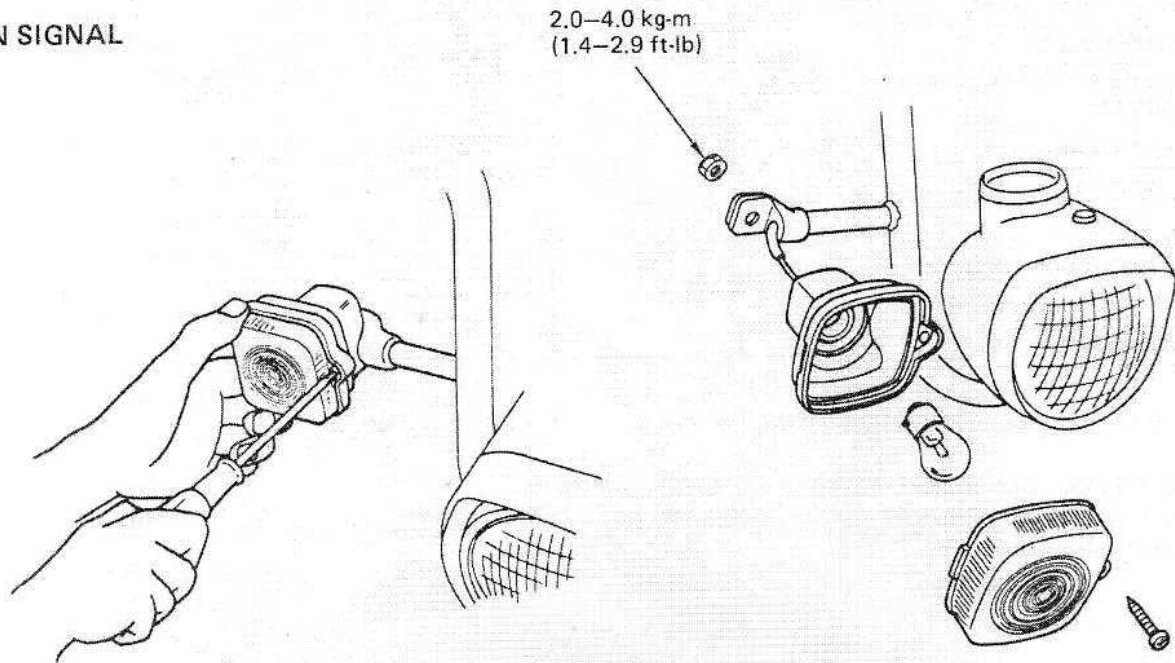




• NC50



**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
<b>DIMENSIONS</b>		
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)
<b>FRAME</b>		
Type	Back bone	
F. suspension	Telescopic fork	
R. suspension	Swing arm	
F. tire size, pressure	2.25 - 14 - 4PR 1.25kg/cm <sup>2</sup> (18 psi)	1.5 kg/cm <sup>2</sup> (21 psi)
R. tire size, pressure	2.25 - 14 - 4PR 2.25kg/cm <sup>2</sup> (32 psi)	2.0 kg/cm <sup>2</sup> (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)	
<b>ENGINE</b>		
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	

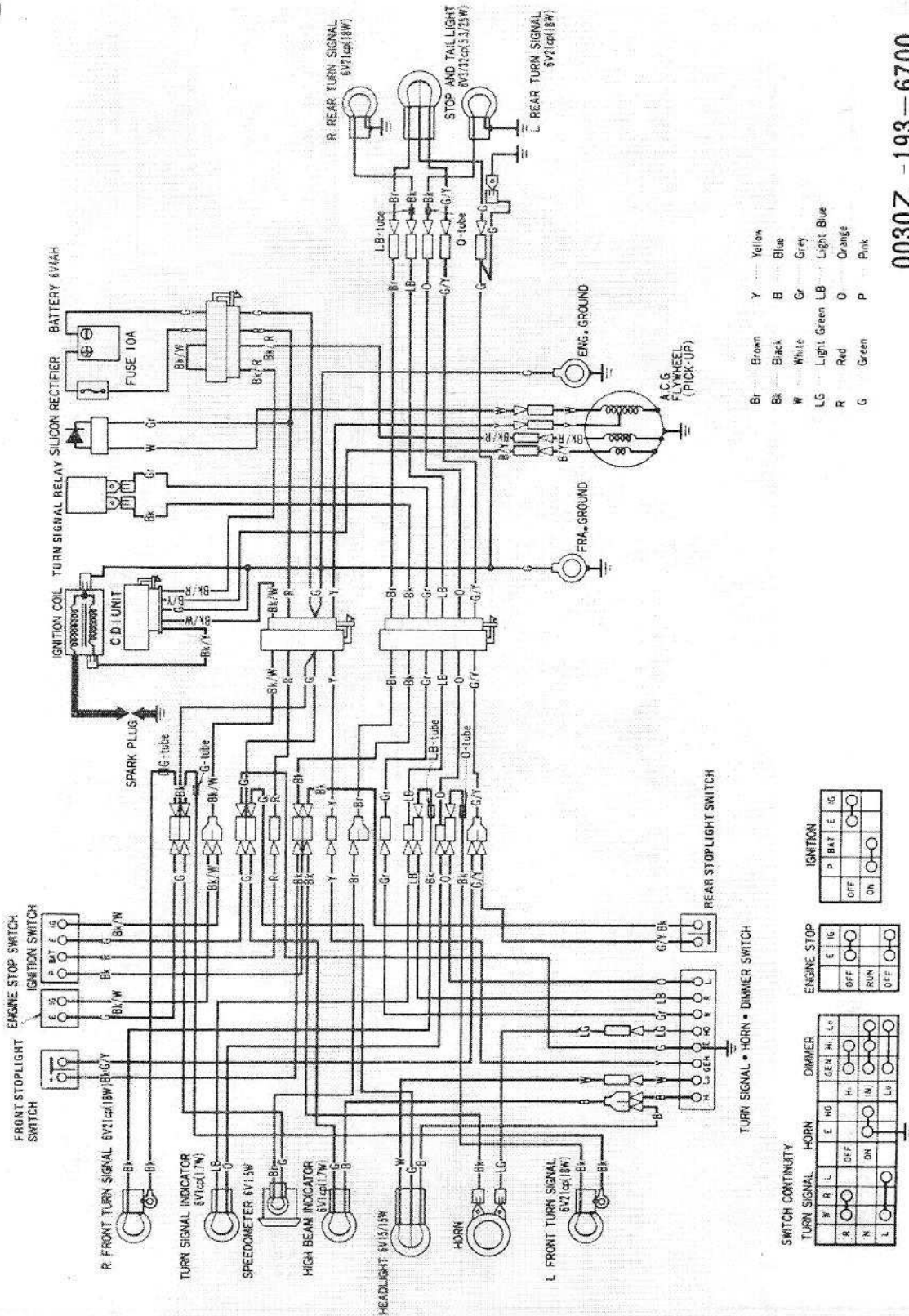
	NA50	NC50
<b>DRIVE CHAIN</b>		
Clutch	Automatic centrifugal wet type	
Primary reduction	Chain and gear	
Gear ratio I	1.482:1	1.000:1
II	1.000:1	Not applicable
Final reduction	14.220:1	
<b>ELECTRICAL</b>		
Ignition	Capacitive Discharge Ignition	
Starting system	Kick Starter	
Generator	A.C. generator 6V, 68W/5,000 rpm	
Spark plug ( ) : optional	NGK:BP4HS, (BP5HS), ND:W14 FP-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

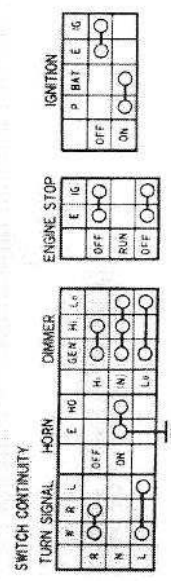
# 15. WIRING DIAGRAMS

'81 NA50

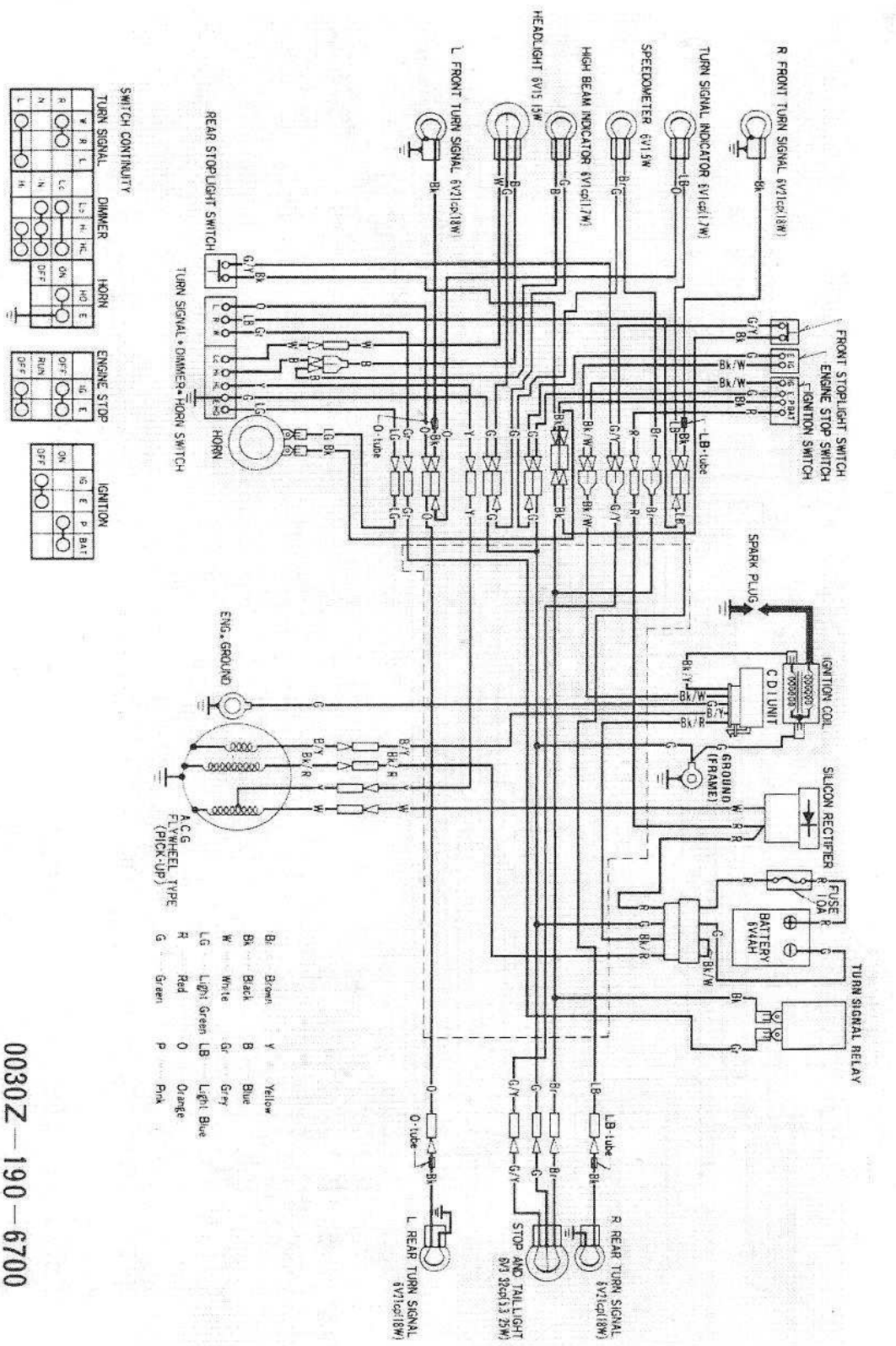


Br	Brown	Y	Yellow
Bk	Black	B	Blue
W	White	Gr	Grey
LG	Light Green	LB	Light Blue
R	Red	O	Orange
G	Green	P	Pink

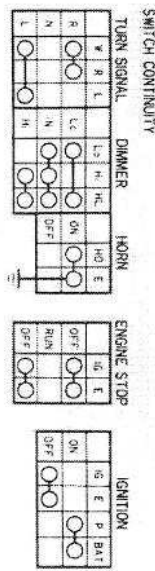
0030Z - 193 - 6700



'81 NC50



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



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

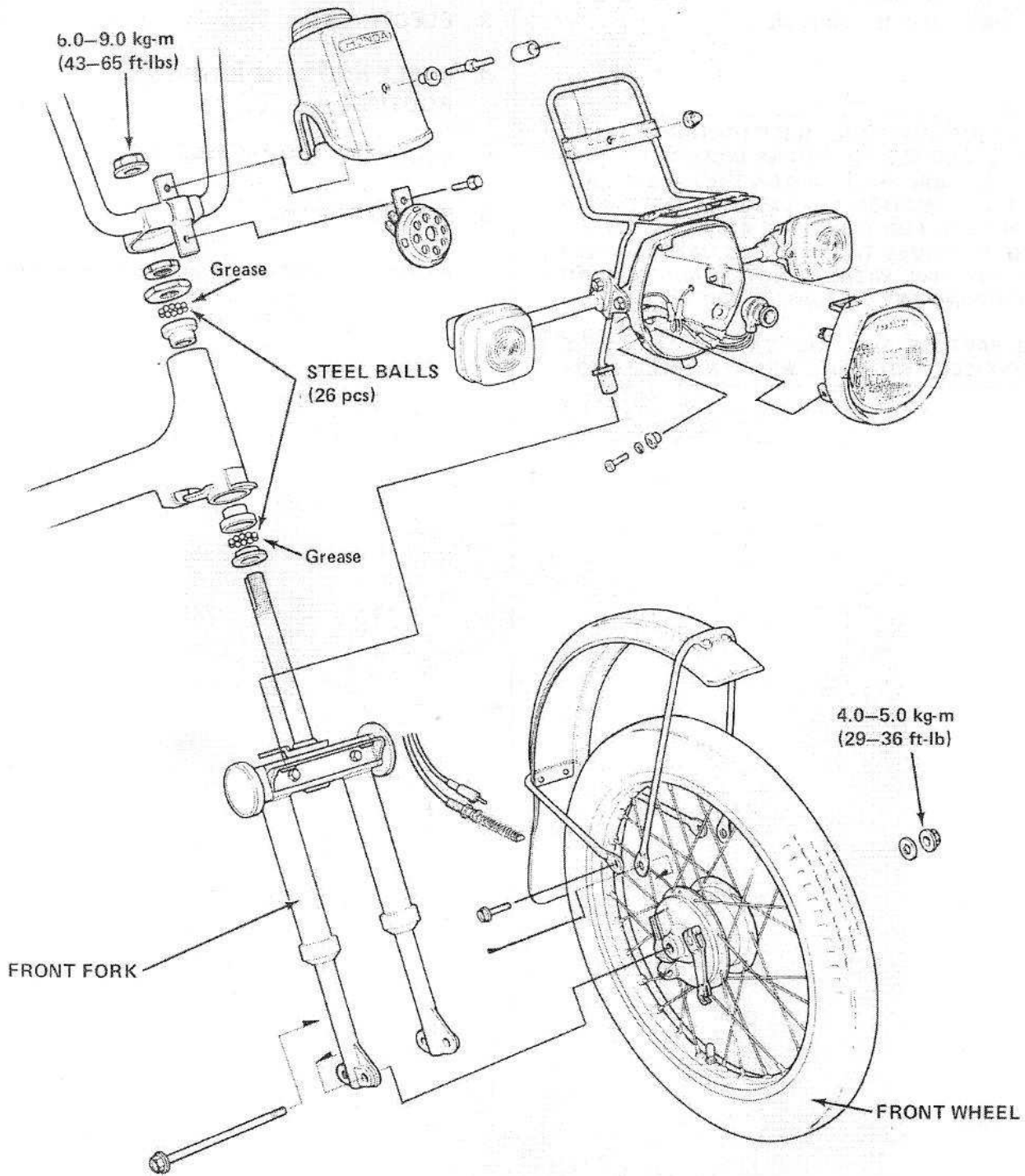
**TABLE OF CONTENTS**

- 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

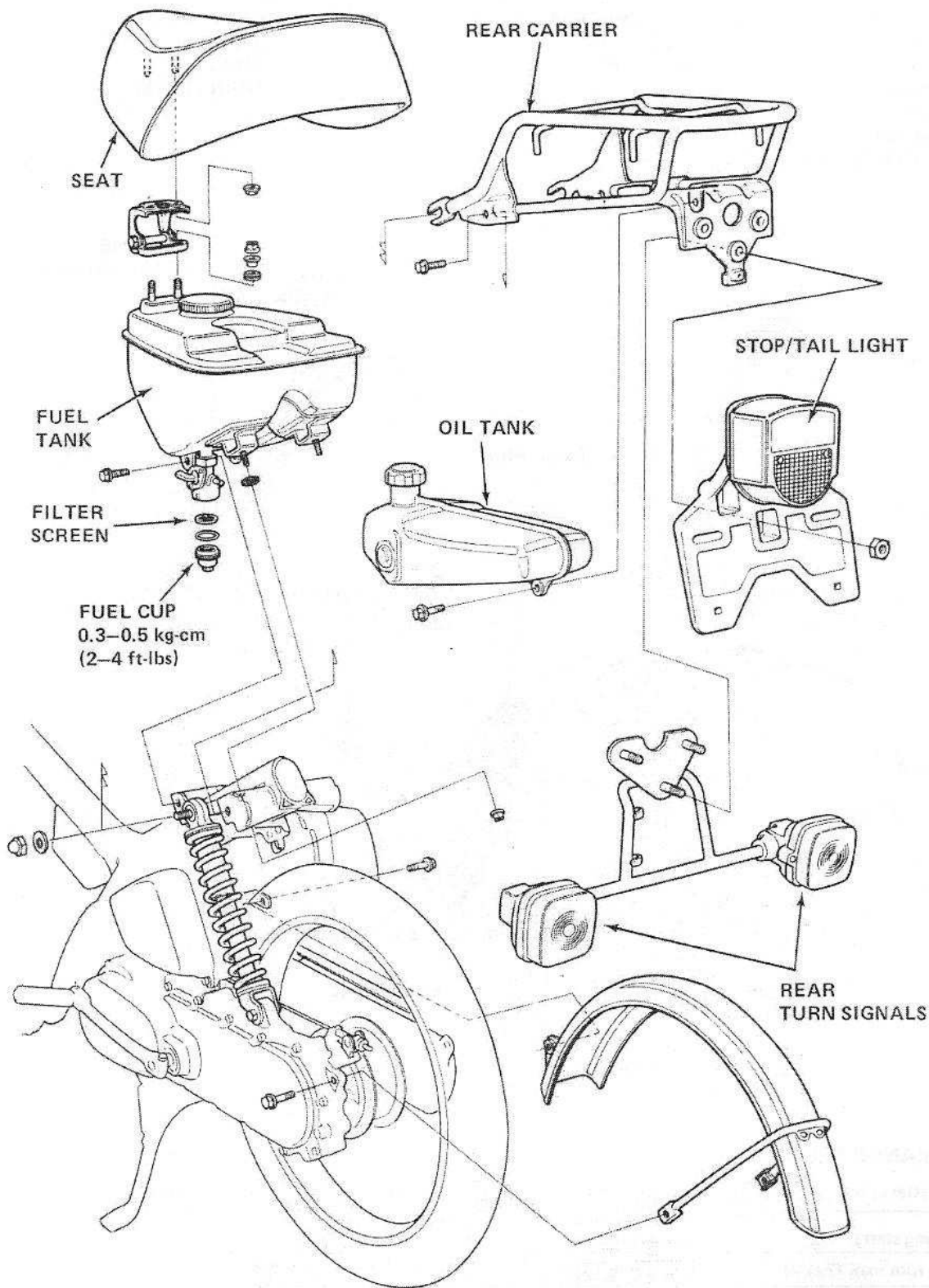
NOTE: The front axle nut torque has been increased. Refer to page 17-1 for steering stem tightening procedures.







## 2. FUEL TANK/SEAT/REAR CARRIER





### 3. ELECTRICAL

#### COMPONENT LOCATIONS

1. IGNITION SYSTEM

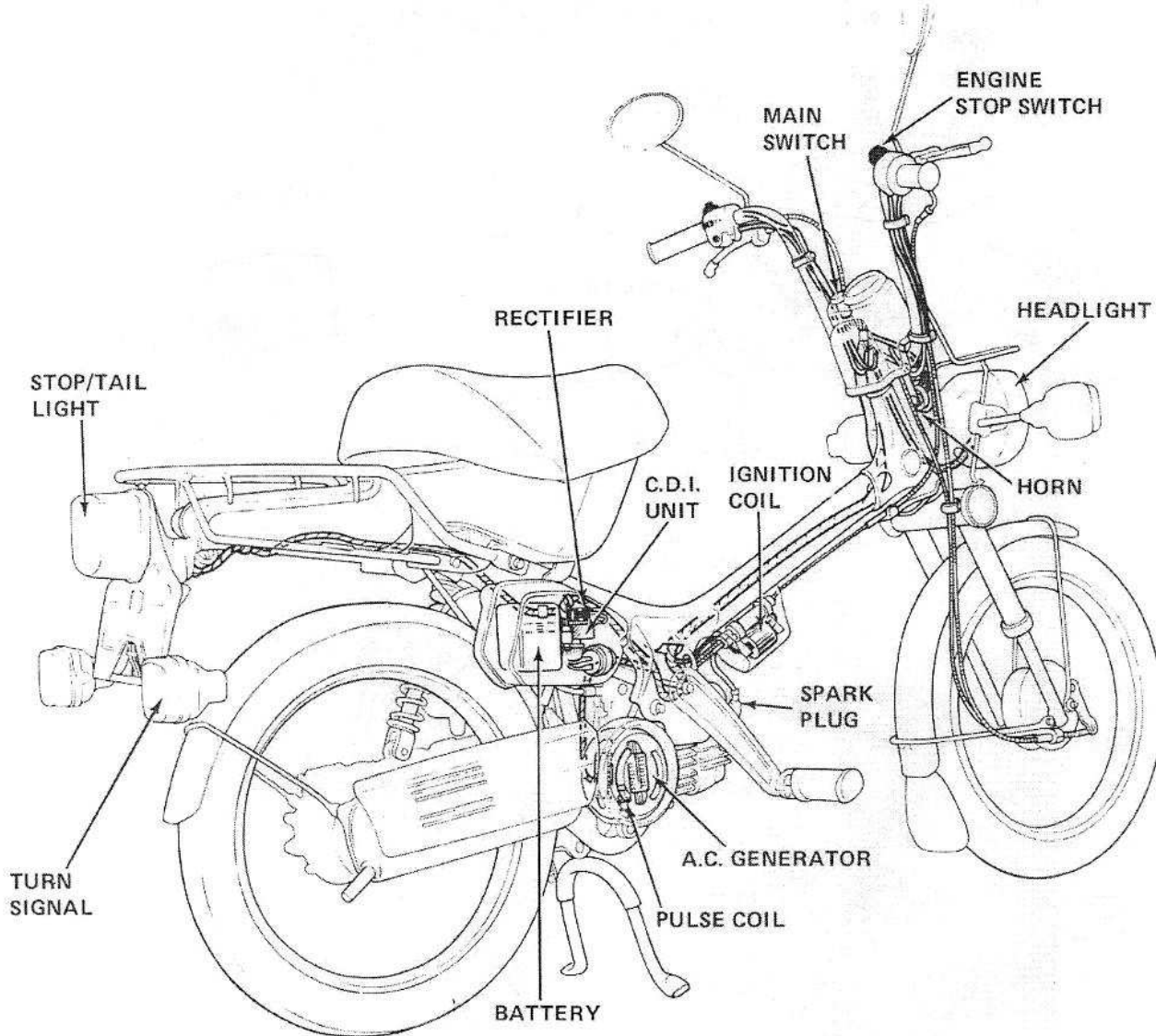
- IGNITION COIL
- A.C. GENERATOR
- C.D.I. UNIT
- SPARK PLUG
- PULSE COIL
- MAIN SWITCH
- ENGINE STOP SWITCH

2. BATTERY/CHARGING SYSTEM

- A.C. GENERATOR
- RECTIFIER
- BATTERY

3. LIGHTING SYSTEM AND HORN

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



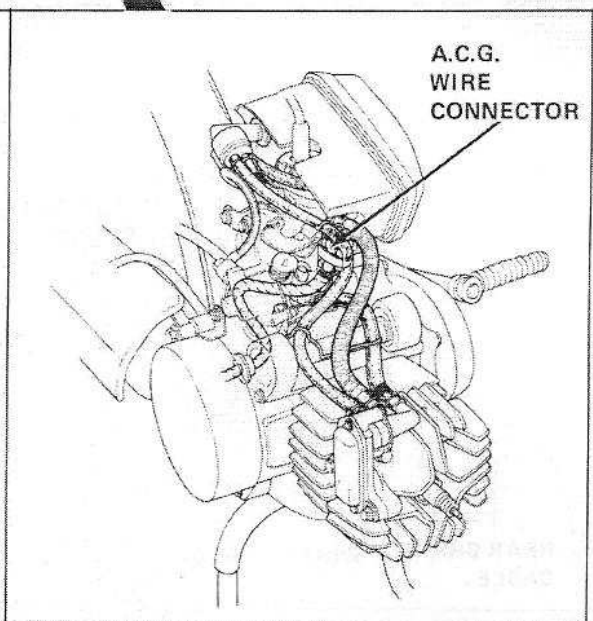
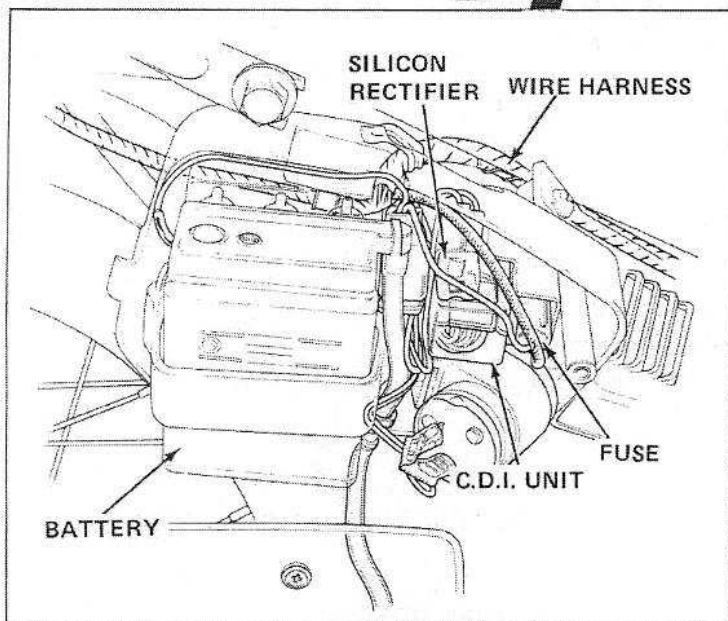
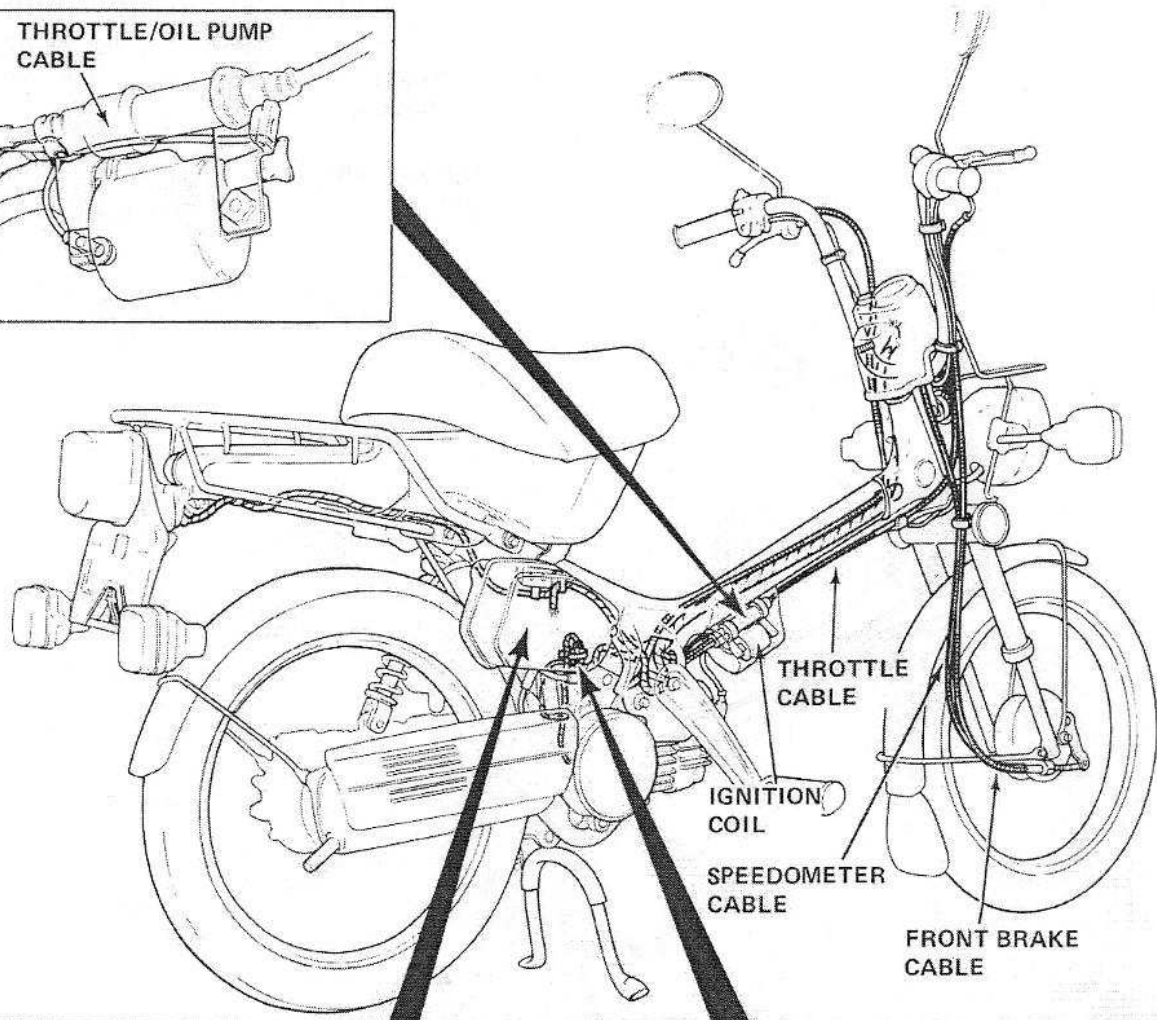
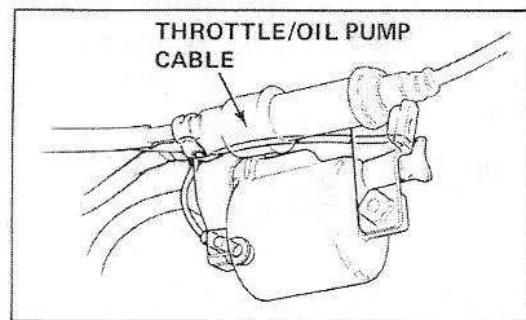
#### PERFORMANCE TEST

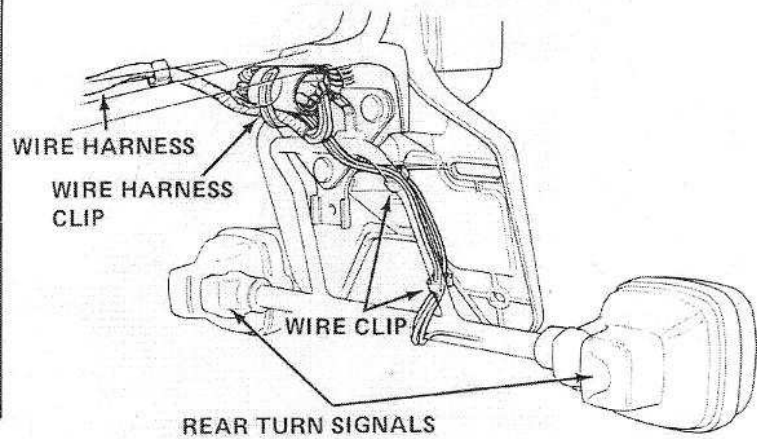
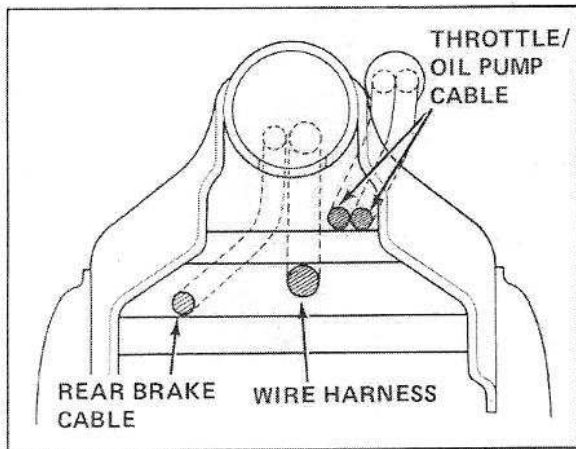
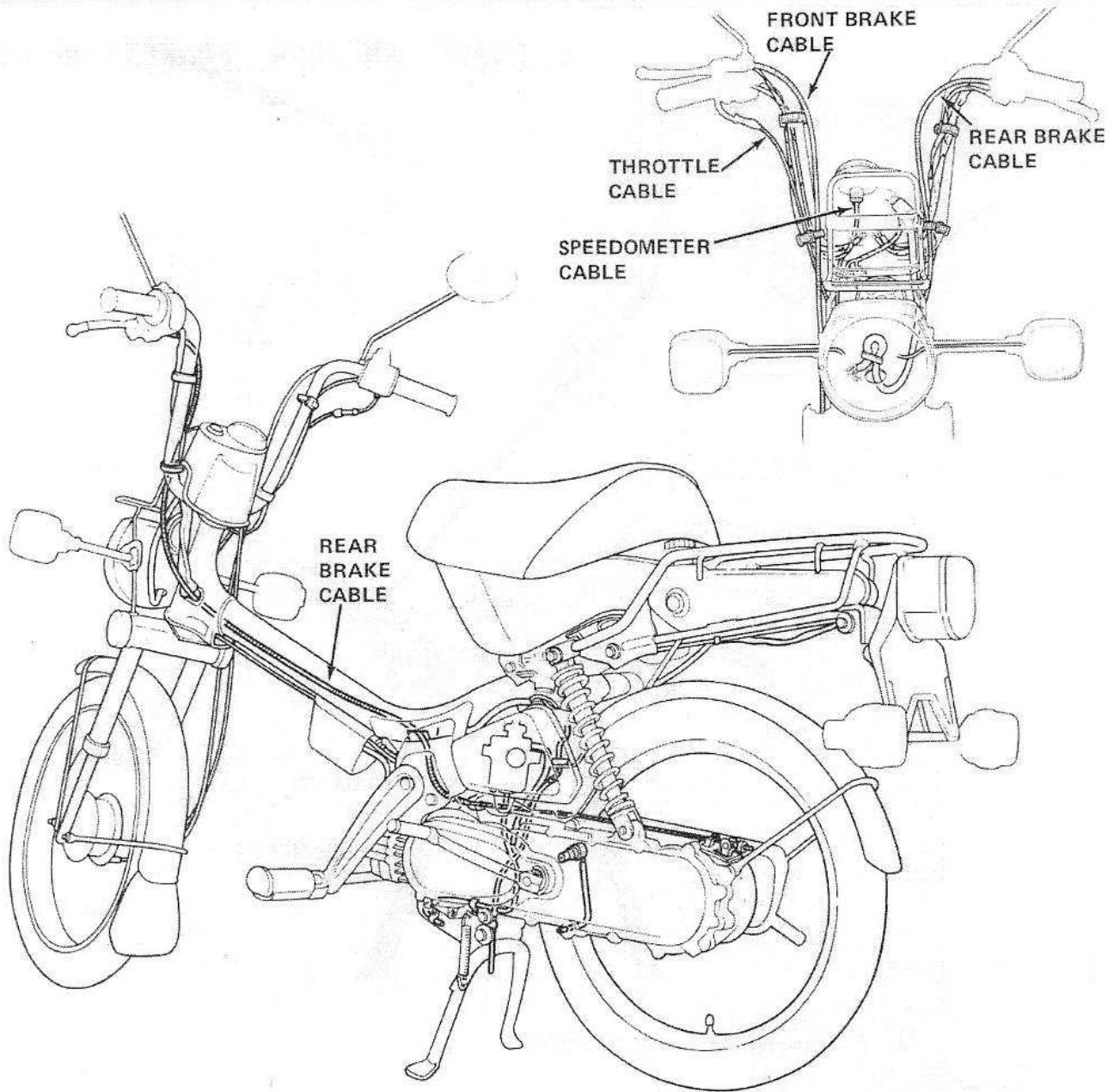
Check the battery, A.C. generator and resistor when the readings do not match the specifications below.

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)



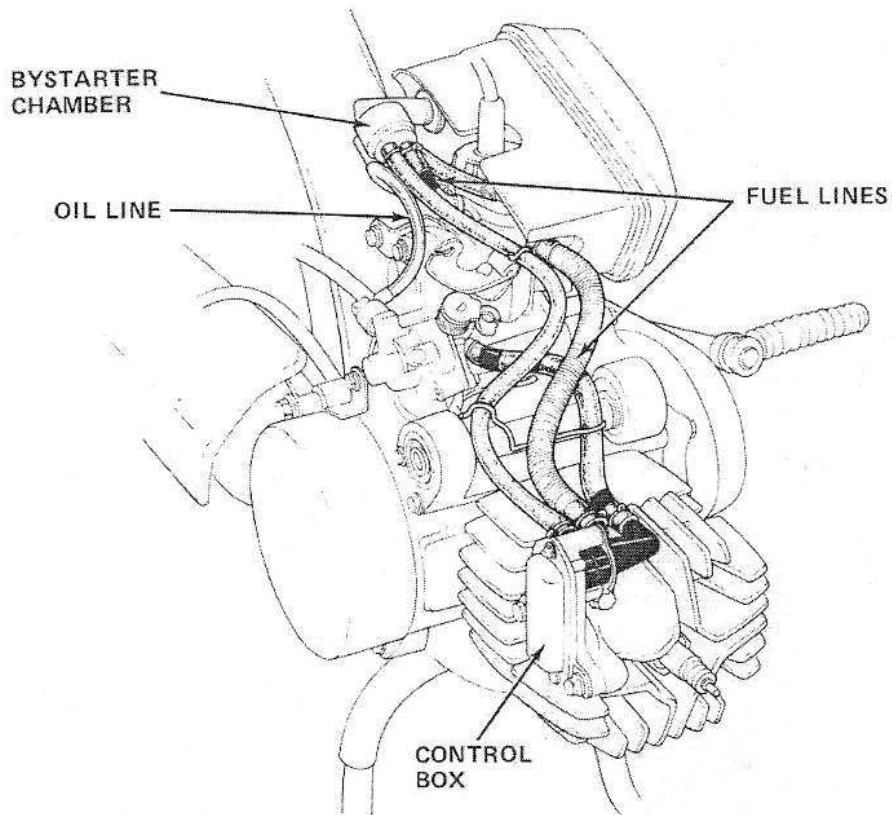
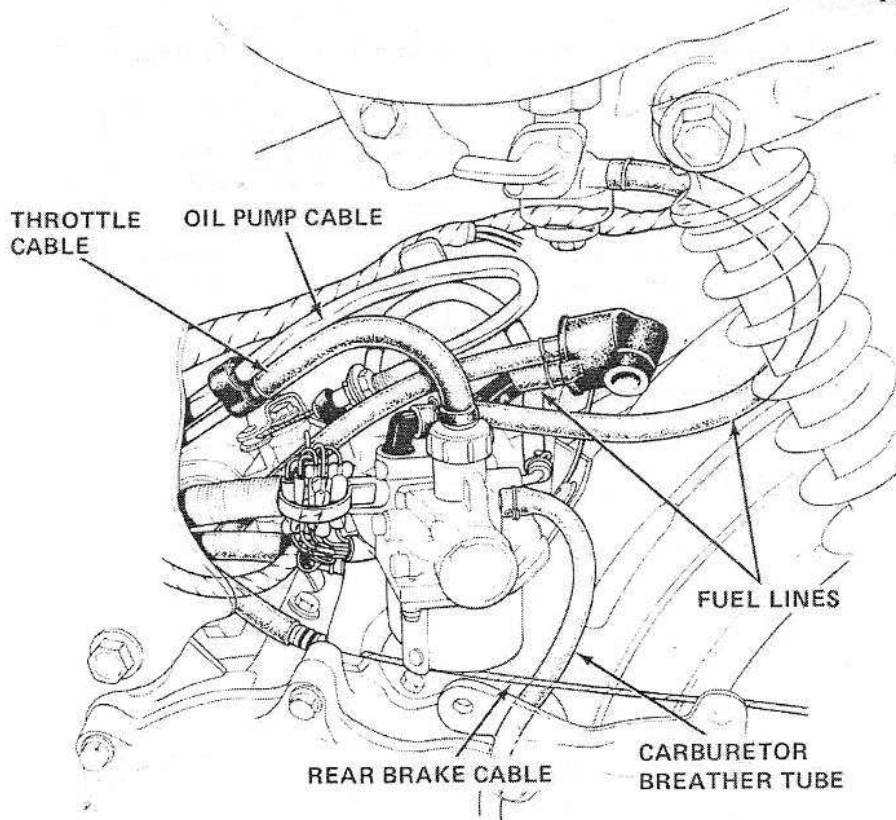
## 4. CABLE AND WIRE HARNESS ROUTING







**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

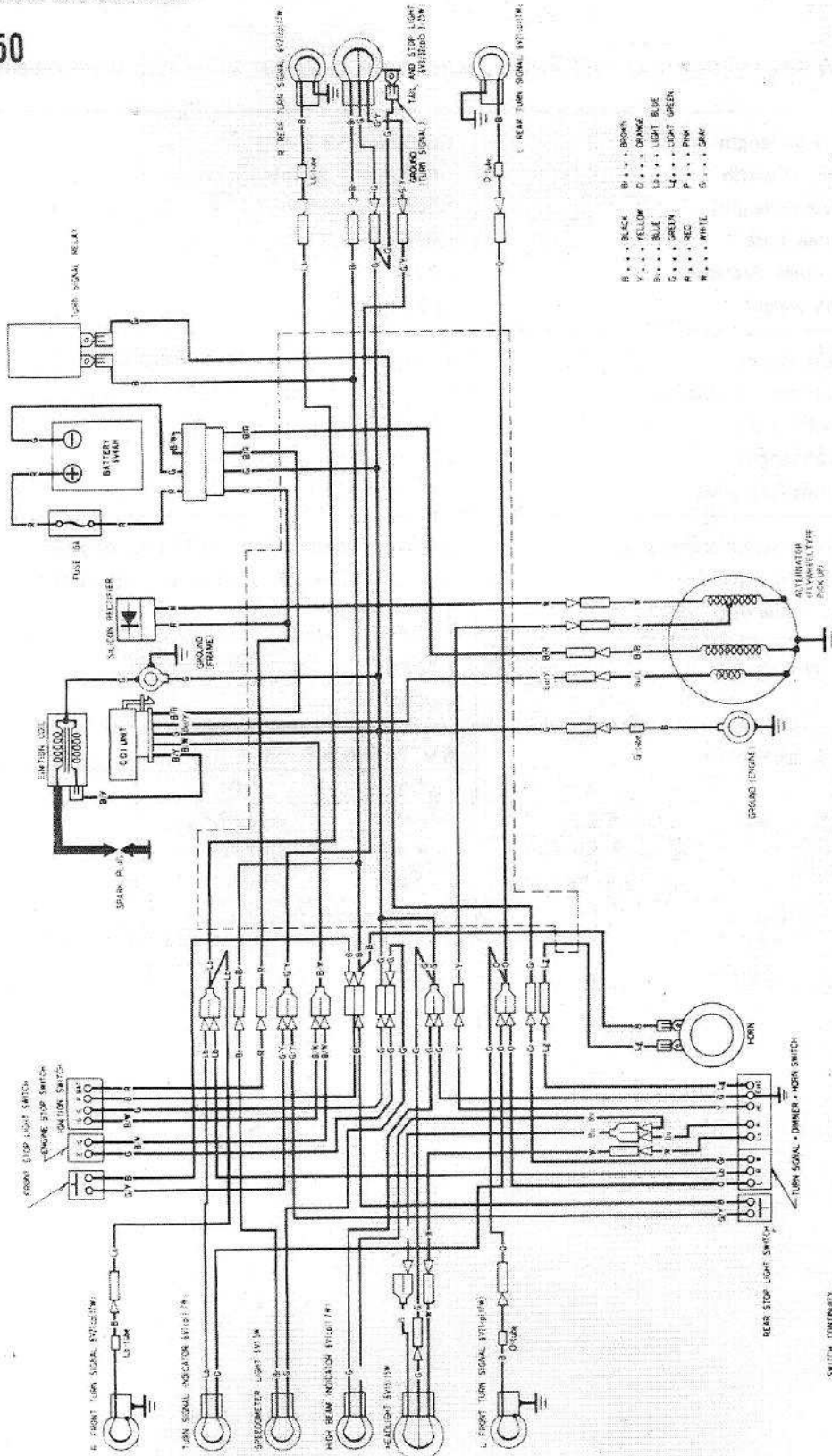
Only specifications that are new or different for 1982 are listed below. Refer to page 31-25 for other specifications.

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
- P . . . PINK
- Gr . . . GRAY

0030Z—GA6—6700

SWITCH CONTINUITY

TURN SIGNAL - DIMMER - HORN SWITCH	TURN SIGNAL - DIMMER - HORN SWITCH	ENGINE STOP SWITCH																																								
<table border="1"> <tr><td>W</td><td>R</td><td>N</td><td>L</td></tr> <tr><td>W</td><td>R</td><td>N</td><td>L</td></tr> <tr><td>W</td><td>R</td><td>N</td><td>L</td></tr> <tr><td>W</td><td>R</td><td>N</td><td>L</td></tr> </table>	W	R	N	L	W	R	N	L	W	R	N	L	W	R	N	L	<table border="1"> <tr><td>IS</td><td>E</td><td>P</td><td>BAT</td></tr> <tr><td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td></tr> <tr><td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td></tr> <tr><td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td></tr> </table>	IS	E	P	BAT	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF	<table border="1"> <tr><td>IS</td><td>E</td></tr> <tr><td>OFF</td><td>OFF</td></tr> <tr><td>RUN</td><td>OFF</td></tr> <tr><td>OFF</td><td>OFF</td></tr> </table>	IS	E	OFF	OFF	RUN	OFF	OFF	OFF
W	R	N	L																																							
W	R	N	L																																							
W	R	N	L																																							
W	R	N	L																																							
IS	E	P	BAT																																							
ON	OFF	OFF	OFF																																							
ON	OFF	OFF	OFF																																							
ON	OFF	OFF	OFF																																							
IS	E																																									
OFF	OFF																																									
RUN	OFF																																									
OFF	OFF																																									