

1. CHARGING SYSTEM

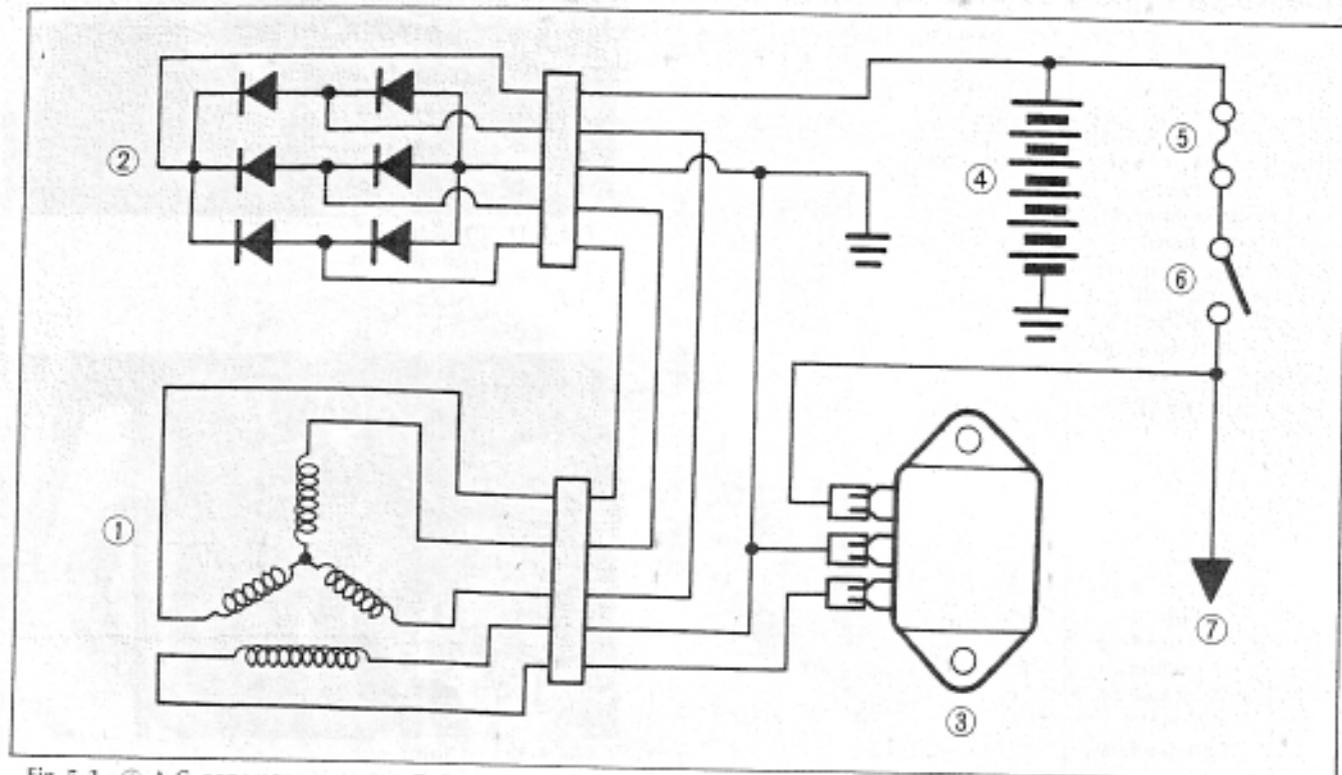


Fig. 5-1 ① A-C generator ② Silicon diode rectifier ③ Pointless regulator ④ Battery ⑤ Fuse ⑥ Main switch ⑦ Load

2. STARTING SYSTEM

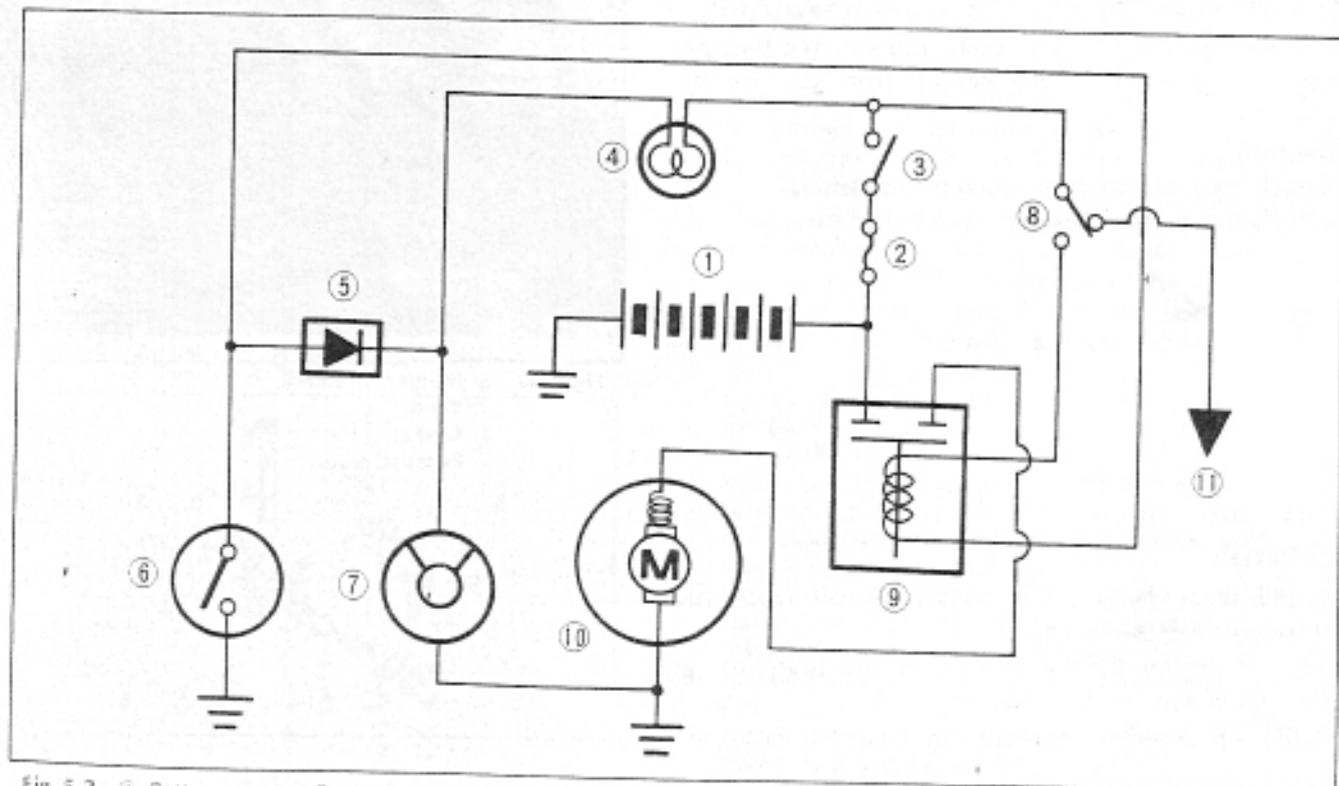


Fig. 5-2 ① Battery ② Fuse ③ Main switch ④ Neutral pilot light ⑤ Silicon diode ⑥ Neutral switch ⑦ Starting switch ⑧ Starting magnetic switch ⑨ Starting motor ⑩ To lighting system

Clutch switch

Check the continuity between the green and green/red leads of the switch in the headlight case. Continuity should exist only when the clutch is disengaged.

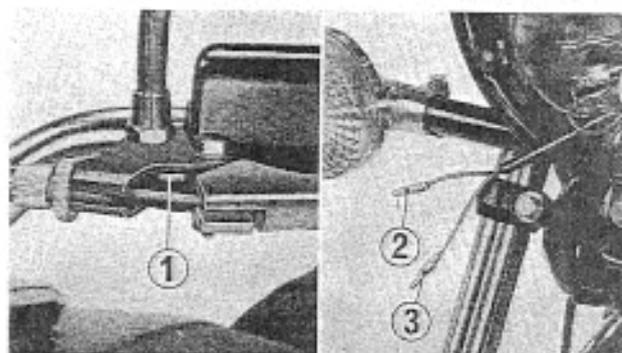


Fig. 5-3 ① Clutch switch
② Green lead
③ Green/red lead

Starting switch

Disconnect the terminals of the starting switch leads in the connector cover. Check for continuity between the circuits (o—o) as shown in the table immediately below.

Terminal	ST1	ST2	HL
Wire color	Black	Yellow/red	Black/red
FREE	○	○	○
PUSH	○	○	

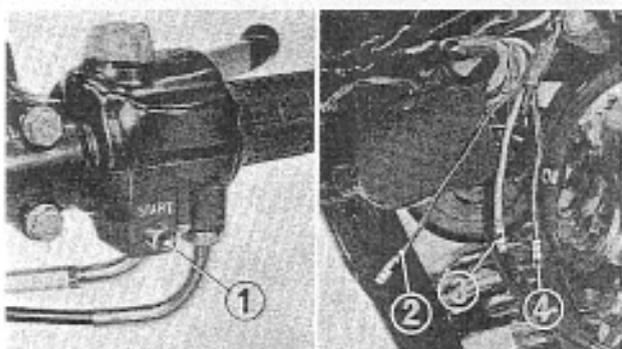


Fig. 5-9 ① Starting switch
② Black lead
③ Yellow/red lead
④ Black/red lead

Silicon diode

Check the diode for continuity with a radio tester in high-reading range. If current flows only one direction (From cathode to anode), the diode is normal. Current flow in both directions or no current is a sign of malfunction of the diode.

NOTE:

Do not use a megger as a high voltage generated in the megger will damage the diode.

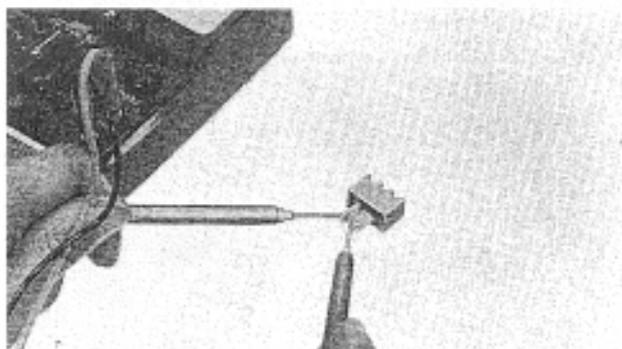


Fig. 5-5 Checking silicon diode

3. ELECTRICAL EQUIPMENTS

Main switch

With the key in OFF, ON or PARK, check the main switch for continuity. The switch is normal if continuity exists in the circuit (o—o). Discard the switch if there is any continuity in other circuits shown below.

Terminal	BAT	IG	TL1	TL2	PA
Wire color	Red	Black	Brown	Brown/white	Brown
PARK	○				○
ON	○	○	○	○	○
OFF					
LOCK					

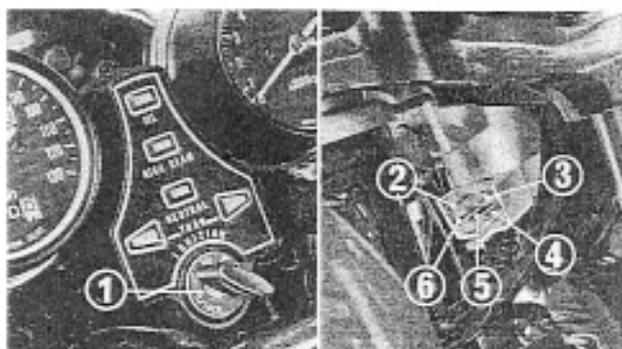


Fig. 5-6 ① Main switch
② Brown
③ Red
④ Brown/white
⑤ Brown
⑥ Black

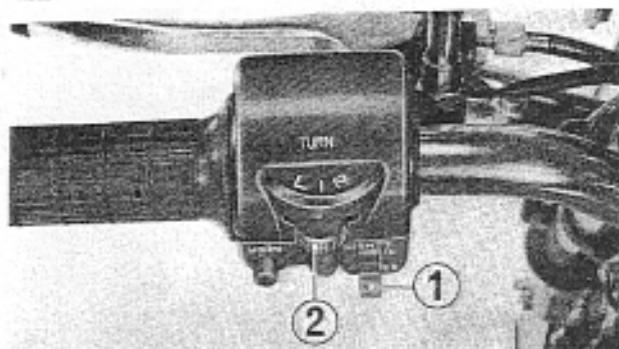


Fig. 5-7 ① Dimmer switch
② Turn signal control switch

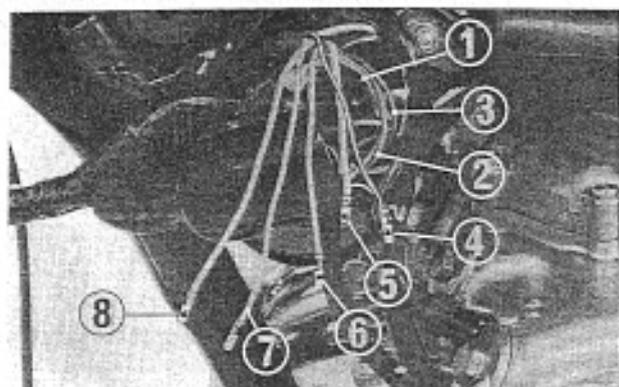


Fig. 5-8 ① Grey lead ⑥ Blue lead
② Orange lead ⑦ Orange/white lead
③ Light blue lead ⑧ Light blue/white lead
④ Black/yellow lead
⑤ White lead

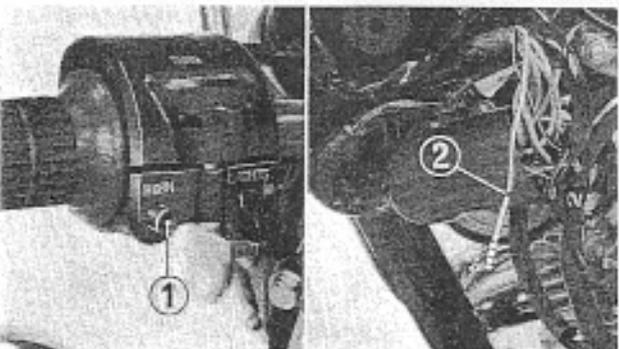


Fig. 5-9 ① Horn switch
② Grey lead

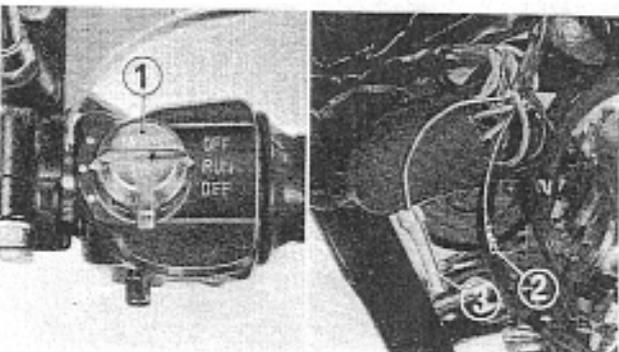


Fig. 5-10 ① Engine stop switch
② Black
③ Black white

Dimmer and turn signal control switch

Check for continuity between respective terminals of the switch leads in the connector cover. The switch is normal if there is continuity as specified below (o—o) with the switch selector knob in each position.

Terminal	W	L	R	P(F)	PL	PR
Wire color	Grey	Orange	Light blue	—	Light blue/white	Orange/white
L	o—o			o—o		
N				o—o	o—o	
R	o—o	o—o		o—o		
Terminal	HL	Hi	Lo	P(F)		
Wire color	Black/Yellow	Blue	White	—		
Hi	o—o					
(N)	o—o	o—o	o—o	o—o		
Lo	o—o		o—o	o—o		

Horn switch

Disconnect the terminal of the horn switch lead in the connector cover. Check the continuity between the grey lead and ground.

Continuity should exist only when the button is depressed.

Engine stop switch

Check for continuity between the respective terminals of the switch leads in the connector cover. The switch is good condition if there is continuity in the circuit (o—o) with the switch selector knob in each position.

Terminal	IG	RUN
Wire color	Black	Black/white
OFF		
RUN	o—o	
OFF		

VI. SERVICE DATA

Courtesy of  Honda4Fun
www.hondafour.com www.honda4fun.com

I SPECIAL TOOLS

No.	Tool No.	Description
	07900-3770000	CB 400F special tool set
1	07902-2000000	Pin spanner (48 mm)
2	07906-3230000	Box wrench (12 mm)
3	07908-0010000	Tappet adjusting wrench
4	07901-3230101	Front wheel bearing retainer wrench
5	07910-3290000	Rear wheel bearing retainer wrench
6	07914-3230000	Snap ring pliers
7	07916-6390000	Lock nut wrench 16 mm)
8	07917-3230000	Allen head wrench (6 mm)
9	07933-3330000	Rotor puller
10	07942-3290100	Valve guide driver
11	07942-3290200	Valve guide compressor
12	07945-3330100	Bearing driver attachment (inner)
13	07945-3330200	Bearing driver attachment (Outer)
14	07945-3330300	Ball race driver attachment
15	07947-3330000	Fork seal driver
16	07949-6110000	Driver handle
17	07953-3330000	Ball race remover
18	07955-3770000	Piston ring compressor
19	07957-3290000	Valve spring compressor
20	07958-3330000	Piston base
21	07959-3290000	Shock absorber compressor
22	07984-2000000	Valve guide reamer (Intake)
23	07984-3770000	Valve guide reamer (Exhaust)
24	07921-0010000	Flare nut wrench
25	07922-2870000	Drive sprocket holder
26	07797-2920300	Special tool case
OPTIONAL		
27	07504-3000100	Vacuum gauge set
28	07908-3230200	Carburetor synchronization wrench set

2. MAINTENANCE SCHEDULE

This maintenance schedule is based upon average riding conditions. Machines subjected to severe use, or ridden in unusually dusty areas, require more frequent servicing.	INITIAL SERVICE PERIOD	REGULAR SERVICE PERIOD Perform at every indicated month or mileage interval, whichever occurs first.			
	500 miles	1 month	3 months	6 months	12 months
		500 miles	1,500 miles	3,000 miles	6,000 miles
Engine Oil—Change	●		○		
Oil Filter Element—Replace	●			○	
Oil Filter Screen—Clean					○
Spark Plug—Clean and adjust gap or replace if necessary.				○	
*Contact Points and Ignition Timing—Clean, check, and adjust or replace if necessary.	●			○	
*Valve Tappet Clearance—Check, and adjust if necessary.	●			○	
*Cam Chain Tension—Adjust	●			○	
Paper Air Filter Element and Breather Element—Clean	(service more frequently if operated in dusty areas)			○	
Paper Air Filter Element—Replace					○
*Carburetor—Check, and adjust if necessary.	●			○	
Throttle Operation—Inspect cable. Check, and adjust free play.	●			○	
*Fuel Filter Screen—Clean				○	
Fuel Lines—Check				○	
*Clutch—Check operation, and adjust if necessary.	●			○	
Drive Chain—Check, lubricate, and adjust if necessary.	**●	○			
Brake Fluid Level—Check and add fluid if necessary.	●			○	
*Brake Shoes/Pads—Inspect, and replace if worn.				○	
Brake Control Linkage—Check linkage, and adjust free play if necessary.	●			○	
*Wheel Rims and Spokes—Check. Tighten spokes and true wheels, if necessary.	●			○	
Tires—Inspect and check air pressure.	●	○			
Front Fork Oil—Drain and refill.	***●				○
Front and Rear Suspension—Check operation.	●			○	
Rear Fork Bushing—Grease, check for excessive looseness.				○	
*Steering Head Bearings—Adjust.					○
*Side Stand—Check installation, operation, deformation, damage and wear.				○	
Battery—Check electrolyte level, and add water if necessary.	●		○		
Lighting Equipment—Check and adjust if necessary.	●	○			
All Nuts, Bolts, and Other Fasteners—Check security and tighten if necessary.	●	○			

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

** Initial service period 200 miles. *** Initial service period 1,500 miles.

3. TORQUE SPECIFICATIONS

ENGINE

Tightening point	Thread dia. (mm)	Torque	
		kg-cm	lbs-ft
Crankcase and crankcase covers	6, P1.0	70-110	5.1-8.0
Cylinder head	8, P1.25	200 (Apply oil to the nuts before tightening)	14.5
Carburetor insulator-to-cylinder head	6, P1.0	70-110	5.1-8.0
Cam sprocket	7, P1.0	160-200	11.6-14.5
A-C generator rotor	10, P1.25	300-400	21.7-29.0
Primary drive gear	12, P1.25	300-400	21.7-29.0
Tappet adjusting nut	5, P0.5	70-110	5.1-8.0
Upper and lower crankcases	8, P1.25	220-260	15.2-18.9
Cylinder head cover	6, P1.0	70-110	5.1-8.0
Clutch center	16, P1.0	400-450	29.0-32.6
Connecting rod	8, P1.25	200-220	14.5-15.2

FRAME

Tightening point	Thread dia. (mm)	Torque	
		kg-cm	lbs-ft
Steering stem nut	24, P1.0	800-1,200	57.9-86.9
Fork top bridge to front forks	8, P1.25	180-230	13.1-16.7
Handlebar holder	8, P1.25	180-230	13.1-16.7
Front fork bottom bridge to front forks	8, P1.25	180-230	13.1-16.7
Spokes	—		
Front wheel	—	25-30	1.9-2.2
Rear wheel	—	20-25	1.5-1.9
Rear fork pivot bolt	14, P1.5	550-700	39.8-50.7
Front wheel axle nut	12, P1.5	450-550	32.6-39.8
Front fork axle holder	8, P1.25	180-230	13.1-16.7
Engine hanger bolt	10, P1.25	300-400	21.7-29.0
Rear wheel axle nut	16, P1.5	800-1,000	57.9-72.4
Final driven sprocket	10, P1.25	400-500	29.0-36.2
Brake arm	6, P1.0	80-100	5.9-7.3
Front and rear brake torque links	8, P1.25	180-230	13.1-16.7
Rear suspension	10, P1.25	300-400	21.7-29.0
Step bar	12, P1.25	450-550	32.6-39.8
Gear change pedal and kick arm	6, P1.0	80-100	5.9-7.3



4. SERVICE DATA

ENGINE

Unit: mm (in.)

Item	Assembly standard	Service limit
Rocker arm-to-rocker arm shaft clearance	0.016-0.052 (0.0006-0.0020)	0.1 (0.0039)
Cam height of camshaft		
Intake	28.185-28.225 (1.1096-1.1112)	28.0 (1.1024)
Exhaust	28.184-28.224 (1.1096-1.1111)	28.0 (1.1024)
Camshaft center journal	—	0.1 (0.0039)
Valve seat width	0.7 (0.03)	1.5 (0.0039)
Valve stem O.D.		
Intake	5.48-5.49 (0.2158-0.2161)	5.35 (0.2106)
Exhaust	5.47-5.48 (0.2154-0.2158)	5.35 (0.2106)
Valve-to-valve guide clearance		
Intake	0.01-0.03 (0.0004-0.0012)	0.3 (0.0118)
Exhaust	0.01-0.03 (0.0004-0.0012)	0.3 (0.0118)
Valve spring preload		
Inner	19.2/13.0-14.6 kg (0.7559/28.665-32.1930 lbs)	—
Outer	23.7/32.0-32.4 kg (0.9330/70.560-71.4420 lbs)	—
Valve spring free length		
Inner	29.0 (1.1417)	27.0 (1.0630)
Outer	34.5 (1.3583)	32.5 (1.2795)
Cylinder head flatness	—	0.3 (0.0118)
Cylinder I.D.	51.00-51.01 (2.0079-2.0083)	51.1 (2.0118)
Piston skirt O.D.	50.97-50.99 (2.0067-2.0075)	50.85 (2.0020)
Piston pin hole I.D.	13.002-13.008 (0.5119-0.5121)	13.05 (0.5138)
Piston pin O.D.	12.994-13.00 (0.5116-0.5118)	12.9 (0.5079)
Piston ring-to-piston ring groove clearance		
Top ring	0.025-0.055 (0.0010-0.0022)	0.15 (0.0059)
Second ring	0.015-0.045 (0.0006-0.018)	0.15 (0.0059)
Piston ring end gap		
Top ring	0.15-0.35 (0.0059-0.0138)	0.7 (0.0276)
Second ring	0.15-0.35 (0.0059-0.0138)	0.7 (0.0276)
Oil ring	0.2-0.5 (0.0079-0.0197)	0.9 (0.0035)
Outer rotor O.D.-to-pump body clearance		
Main pump	0.06-0.12 (0.0024-0.0047)	0.35 (0.0138)
Auxiliary pump	0.15-0.20 (0.0059-0.0079)	0.35 (0.0138)
Outer rotor-to-inner rotor clearance		
Main pump	0.15 (0.0059), max.	0.3 (0.0118)
Auxiliary pump	0.15 (0.0059), max.	0.3 (0.0118)
Friction disc thickness	2.62-2.78 (0.1032-0.1095)	2.3 (0.0906)
Clutch plate surface warpage	0.1 (0.0039), max.	0.2 (0.0079)
Clutch spring free length	31.25 (1.2303)	29.75 (1.1712)
Clutch center-to-clutch plate B clearance	0.1-0.5 (0.004-0.02)	Beyond assembly standard
Gearshift fork finger width	5.93-6.00 (0.2335-0.2362)	5.5 (0.2165)

Unit: mm (in.)

Item	Assembly standard	Service limit
Gearshift guide shaft O.D.	12.957-12.984 (0.5101-0.5112)	12.9 (0.5079)
Gearshift fork I.D.	13.000-13.018 (0.5118-0.5125)	12.95 (0.5096)
Kick starter pinion-to-shaft clearance	0.04-0.082 (0.0016-0.0032)	0.1 (0.004)
Gearshift fork dowel-to-drum groove clearance	0.05-0.22 (0.0020-0.0087)	0.3 (0.0118)
Transmission gear backlash	—	0.2 (0.0079)
Transmission gear-to-shaft clearance		
C-1	0.04-0.074 (0.0016-0.0029)	0.2 (0.0079)
Other gears	0.04-0.081 (0.0016-0.0032)	0.2 (0.0079)
Cam chain tensioner slipper thickness (center)	4.0 (0.1575)	3.0 (0.118) max.
Cam chain guide thickness	6.1-6.3 (0.2402-0.2480)	5.0 (0.197)
Crankshaft runout (center)	0.03 (0.0012), max.	0.05 (0.0020)
Crankshaft journal clearance	0.018-0.048 (0.0007-0.0019)	0.08 (0.0032)
Connecting rod small end I.D.	13.012-13.033 (0.5123-0.5131)	13.10 (0.5158)
Connecting rod big end side clearance	0.02-0.07 (0.0008-0.0028)	0.15 (0.0059)
Connecting rod big end-to-crankshaft journal clearance	0.018-0.048 (0.0007-0.0019)	0.08 (0.0032)
Primary chain guide thickness (center)	6.0-6.3 (0.236-0.248)	5.0 (0.197)

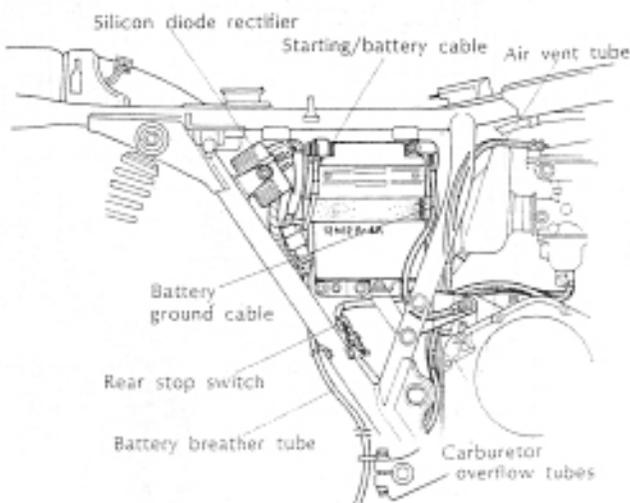
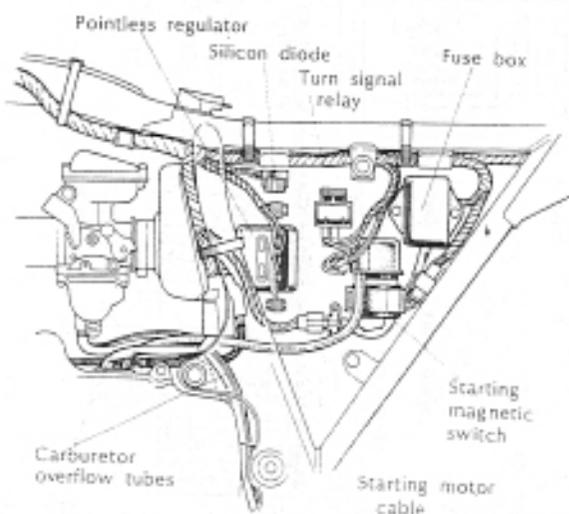
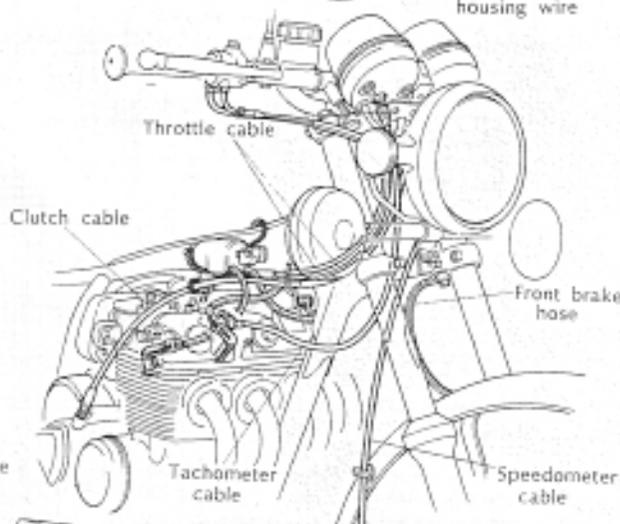
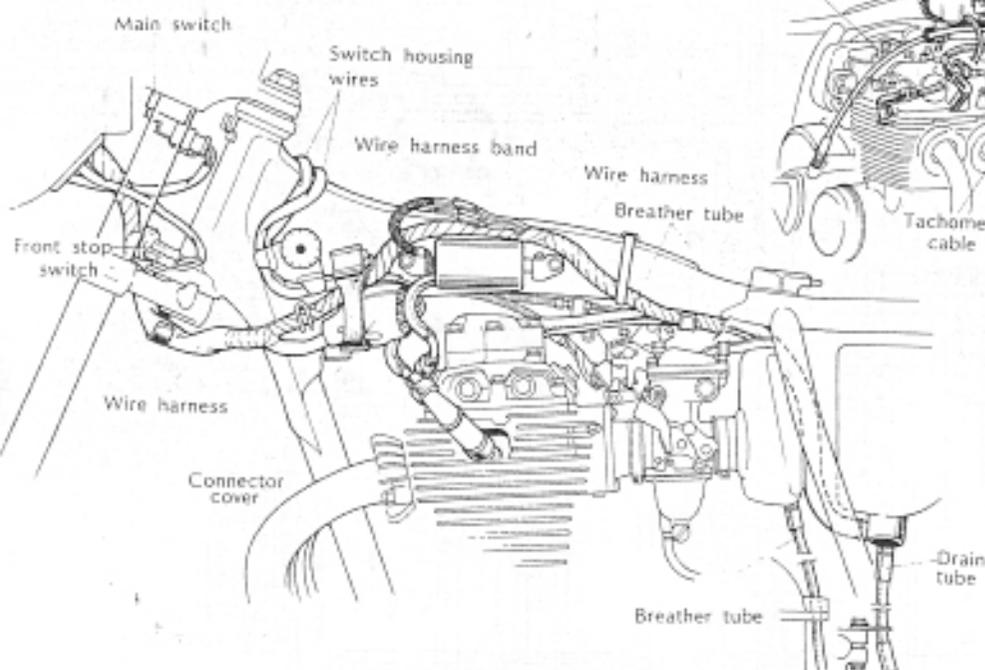
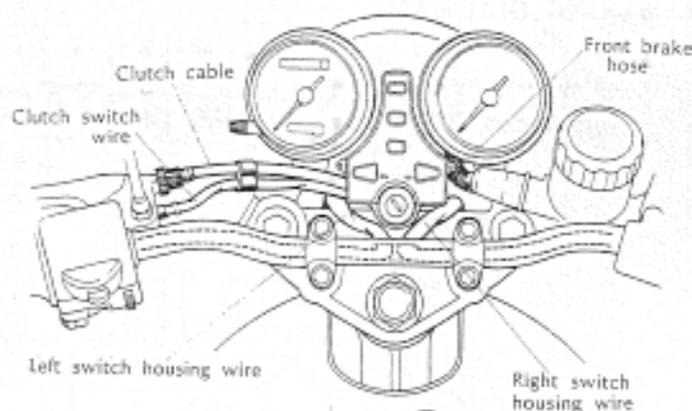
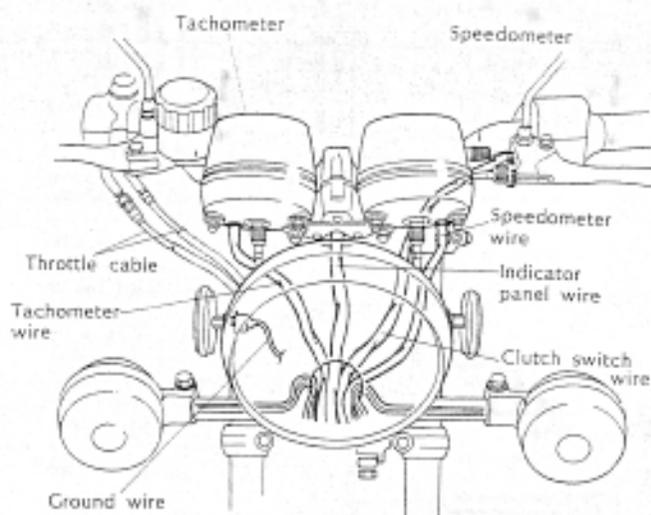


FRAME

Unit: mm (in.)

Item	Assembly standard	Service limit
Brake disc face runout	0.3 (0.0118), max.	0.3 (0.0118), min.
Brake disc thickness	6.9-7.1 (0.2717-0.2795)	—
Wheel rim face runout	0.5 (0.0197), max.	2.0 (0.079)
Wheel bearing end play	0.07 (0.0028) max.	0.1 (0.0039)
Wheel bearing radial play	0.03 (0.0012), max.	0.05 (0.0020)
Front axle runout	0.01 (0.0004)	0.2 (0.0079)
Caliper cylinder I. D.	38.18-38.20 (1.5032-1.5039)	38.215 (1.5045)
Caliper piston O. D.	38.115-38.480 (1.5006-1.5150)	38.105 (1.5002)
Master cylinder I. D.	14.00-14.043 (0.5512-0.5529)	14.055 (0.5533)
Master cylinder piston O. D.	13.957-13.984 (0.5495-0.5505)	13.940 (0.5488)
Rear axle runout	0.01 (0.0004)	0.2 (0.0079)
Rear brake lining thickness	4.9-5.0 (0.1929-0.1969)	2.5 (0.0984)
Rear brake drum I. D.	160.0-160.3 (6.2992-6.3110)	161 (6.3386)
Front suspension spring free length	478.6 (18.843)	450 (17.717)
Rear suspension spring free length	210.4 (8.284)	190 (7.480)
Rear fork pivot bushing-to-center collar clearance	0.1-0.3 (0.0039-0.0118)	0.5 (0.02)
Rear fork bushing I. D.	21.5-21.552 (0.8465-0.8485)	21.70 (0.8543)
Center collar O. D.	21.427-21.460 (0.8436-0.8449)	21.35 (0.8406)
Front fork bottom case I. D.	33.000-33.039 (1.2992-1.3007)	33.18 (1.3063)
Front fork Pipe O. D.	32.90-32.98 (1.2952-1.2984)	32.875 (1.2944)

6. ROUTING





7. SPECIFICATION

	Item	Specification	
Dimension	Overall length	2,040 mm (80.3 in.)	
	Overall width	705 mm (27.8 in.)	
	Overall height	1,040 mm (40.9 in.)	
	Wheel base	1,355 mm (53.3 in.)	
	Seat height	790 mm (31.1 in.)	
	Foot peg height	330 mm (13.0 in.)	
	Ground clearance	150 mm (5.9 in.)	
	Dry weight	170 kg (375 lbs.)	
Frame	Type	Semi-double cradle	
	F. suspension, travel	Telescopic fork, Travel 114.5 mm (4.5 in.)	
	R. suspension, travel	Swing arm, Travel 79.0 mm (3.1 in.)	
	F. tire size, pressure	3.00S18 (4PR), Air pressure 1.8 kg/cm ² (26 psi)	
	R. tire size, pressure	3.50S18 (4PR), Air pressure 2.0/25 kg/cm ² (28/36 psi)	
	F. brake, lining area	Disc brake, Lining swept areas 30 cm ² (5.9 sq. in.)	
	R. brake, lining area	Internal expanding shoes, Lining swept areas 70 cm ² (10.9 sq. in.)	
	Fuel capacity	14 lit. (3.7 U.S. gal. 3.1 Imp. gal.)	
	Fuel reserve capacity	3 lit. (0.8 U.S. gal. 0.7 Imp. gal.)	
	Caster angle	63°30'	
	Trail length	85 mm (3.3 in.)	
	Front fork oil capacity	160-165 cc (to fill if dry) (5.6-5.8 ozs.)	
	Front fork oil capacity	145-150 cc (refill after draining) (4.8-4.9 ozs.)	
Engine	Type	Air cooled, 4-stroke O.H.C. engine	
	Cylinder arrangement	Vertical four parallel	
	Bore and stroke	51.0×50.0 mm (2.008×1.969 in.)	
	Displacement	408 cc (24.9 cu. in.)	
	Compression ratio	9.4 : 1	
	Valve train	Chain driven over head camshaft	
	Oil capacity	3.5 lit. (3.7 U.S. qt. 3.1 Imp. qt.)	
	Lubrication system	Forced and wet sump	
	Cylinder head compression pressure	12 kg/cm ² (170.7 psi)	
	Intake valve	Opens	At 5° (before top dead center)
		Closes	At 35° (after bottom dead center)
	Exhaust valve	Opens	At 35° (before bottom dead center)
		Closes	At 5° (after top dead center)
	Valve tappet clearance		IN-EX 0.05 mm (0.002 in.)
Idle speed		1,200 rpm	

	Item	Specifications
Carburetor	Type	Piston valve
	Setting mark	054-A
	Main jet	φ 75
	Slow jet	φ 40
	Air screw opening	2 ± 1/2
	Float height	21 mm (0.827 in.)
Drive train	Clutch	Wet, multi-plate type
	Transmission	6-speed constant mesh
	Primary reduction	3.423
	Gear ratio I	2.733
	Gear ratio II	1.800
	Gear ratio III	1.375
	Gear ratio IV	1.111
	Gear ratio V	0.965
	Gear ratio VI	0.866
	Final reduction	2.235
	Gear shift pattern	Left foot operated return system
Electrical	Ignition	Battery and ignition coil
	Starting system	Starting motor and kick starter
	Alternator	A-C generator 0.156 kW/5,000 rpm
	Battery capacity	12V-12AH
	Spark plug	NGK D8ESL, ND X24ES
	Headlight	Low/High beam 12V-35W/50W
	Tail/stoplight	Tail/Stop 12V-3/32cp (SAE TRADE NO. 1157)
	Turn signal light	12V-32cp (SAE TRADE NO. 1157/1073)
	Speedometer light	12V-2cp (SAE TRADE NO. 57)
	Tachometer light	12V-2cp (SAE TRADE NO. 57)
	Neutral indicator light	12V-2cp (SAE TRADE NO. 57)
	Turn signal indicator light	12V-2cp (SAE TRADE NO. 57)
	High beam indicator light	12V-2cp (SAE TRADE NO. 57)
	Position light	12V-3cp (SAE TRADE NO. 1757)