

SERVICING INFORMATION

CONTENTS

<i>SPECIAL TOOLS</i>	<i>7- 1</i>
<i>TIGHTENING TORQUE</i>	<i>7- 3</i>
<i>WIRING DIAGRAM</i>	<i>7- 5</i>
<i>WIRE ROUTING</i>	<i>7- 6</i>
<i>SERVICE DATA</i>	<i>7- 7</i>
<i>TROUBLESHOOTING</i>	<i>7-11</i>

7-1 SERVICING INFORMATION

SPECIAL TOOLS

















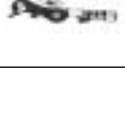
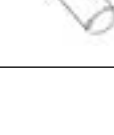
FIG	PART No.	PART NAME	FIG	PART No.	PART NAME
	09900-00401	Hexagon wrench set		09910-20116	Conrod holder
	09900-06107	Snap ring pliers (opening type)		09910-32812	Crank shaft installer
	09900-06108	Snap ring pliers (closing type)		09910-60611	Universal clamp wrench
	09900-09003	Impact driver set		09913-50121	Oil seal remover
	09900-20804	Thickness gauge		09913-75810	Bearing remover/ installer
	09900-20805	Tire depth gauge		09913-75820	Bearing remover/ installer
	09900-21602	CCI oil gauge		09913-75830	Bearing remover/ installer
	09900-25002	Pocket tester		09913-76010	Bearing remover/ installer
	09900-26006	Tachometer		09913-84510	Bearing remover/ installer


















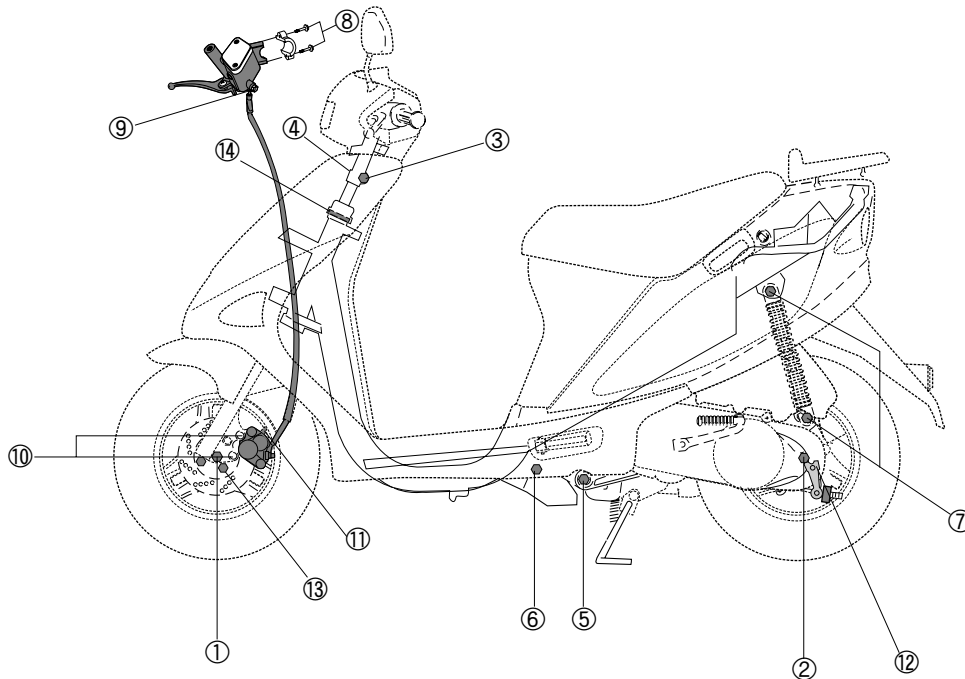
FIG	PART No.	PART NAME
	09913-85210	Bearing remover/ installer
	09914-05210-005	Bearing remover/ installer
	09920-13120	Crankcase separating tool
	09921-20210	Bearing remover
	09923-73210	Bearing remover
	09923-74510	Bearing remover
	09924-74510	Bearing installer handle
	09924-74540	Bearing installer attachment
	09924-84520	Bearing installer set

FIG	PART No.	PART NAME
	09925-98220	Bearing installer
	09930-30102	Sliding shaft
	09930-30163	Rotor remover
	09930-40113	Rotor holder
	09941-34513	Bearing installer
	09941-50110	Bearing remover
	09941-74910	Bearing installer
	09943-88211	Bearing installer

7-3 SERVICING INFORMATION

TIGHTENING TORQUE

CHASSIS



No	Item	N · m	kg · m	lb-ft
1	Front axle nut	33~52	3.3~5.2	24.0~37.5
2	Rear axle nut	60~90	6.0~9.0	43.5~65.0
3	Handle bar clamp nut	48~52	4.8~5.2	34.5~37.5
4	Handle bar set bolt	22~28	2.2~2.8	16.0~20.0
5	Engine mount nut	40~60	4.0~6.0	29.0~43.5
6	Engine mounting bracket nut	48~72	4.8~7.2	34.5~52.0
7	Rear shock absorber bolt	20~30	2.0~3.0	14.5~21.5
8	Front brake master cylinder bolt	8~12	0.8~1.2	6.0~8.5
9	Front brake hose union bolt	20~25	2.0~2.5	14.5~18.0
10	Front brake caliper mounting bolt	18~28	1.8~2.8	13.0~20.0
11	Front brake air bleeder valve	6~9	0.6~0.9	4.5~6.5
12	Rear brake cam lever nut	6~9	0.6~0.9	4.5~6.5
13	Front brake disc bolt	18~28	1.8~2.8	13.0~20.0
14	Steering stem lock nut	60~100	6.0~10.0	43.5~72.5

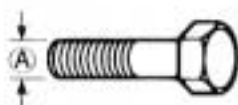
ENGINE

No	Item	N · m	kg · m	lb-ft
1	Spark plug	25~30	2.5~3.0	18.0~21.5
2	Magneto rotor nut	35~45	3.5~4.5	25.5~31.0
3	Kick starter driven nut	40~60	4.0~6.0	29.0~43.5
4	Clutch shoe nut	40~60	4.0~6.0	29.0~43.5
5	Clutch housing nut	40~60	4.0~6.0	29.0~43.5
6	Kick starter lever bolt	8~12	0.8~1.2	6.0~8.5
7	Final gear oil drain plug	4~7	0.4~0.7	3.0~5.0
8	Final gear oil level bolt	9~15	0.9~1.5	6.5~11.0
9	Cylinder head nut	8~12	0.8~1.2	6.0~8.5
10	Muffler mounting bolt	8~12	0.8~1.2	6.0~8.5
11	Exhaust pipe nut	8~12	0.8~1.2	6.0~8.5

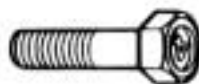
TIGHTENING TORQUE CHART

For other bolts and nuts not listed in the preceding page, refer to this chart.

Bolt Diameter Ⓐ (mm)	Conventional or “4” marked bolt			“7” marked bolt		
	N · m	kg · m	lb-ft	N · m	kg · m	lb-ft
4	1~2	0.1~0.2	0.7~1.5	1.5~3	0.15~0.3	1.0~2.0
5	1~4	0.2~0.4	1.5~3.0	3~6	0.3~0.6	2.0~4.5
6	4~7	0.4~0.7	3.0~5.0	8~12	0.8~1.2	6.0~8.5
8	10~16	1.0~1.6	7.0~11.5	18~28	1.8~2.8	13.0~20.0
10	22~35	2.2~3.5	16.0~25.5	40~60	4.0~6.0	29.0~43.5
12	35~55	3.5~5.5	25.5~40.0	70~100	7.0~10.0	50.5~72.5
14	50~80	5.0~8.0	36.5~58.0	110~160	11.0~16.0	79.5~115.5
16	80~130	8.0~13.0	58.0~94.0	170~250	17.0~25.0	123.0~181.0
18	130~190	13.0~19.0	94.0~137.5	200~280	20.~28.0	144.5~202.5



Conventional bolt



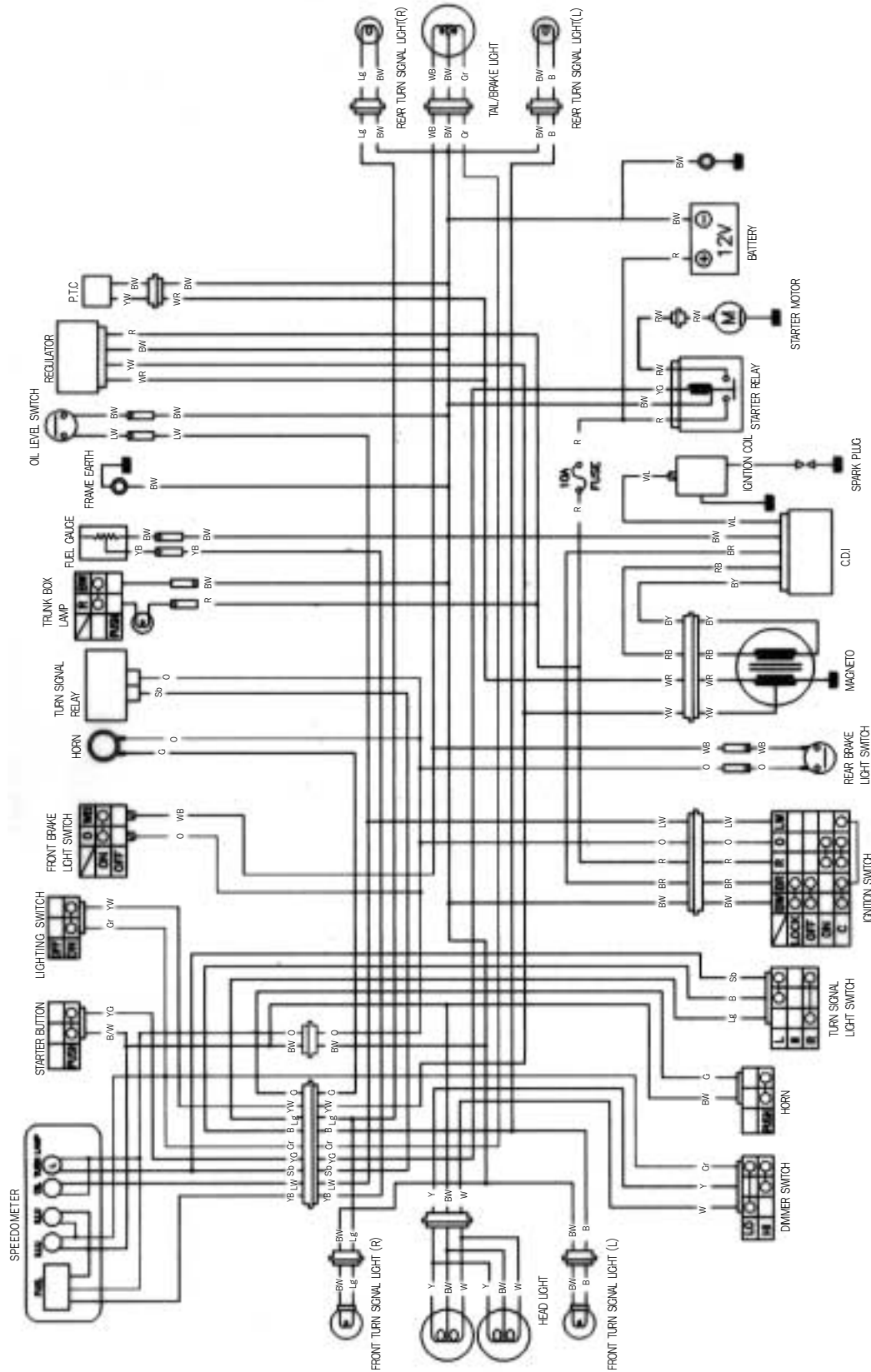
“4” marked bolt



“7” marked bolt

7-5 SERVICING INFORMATION

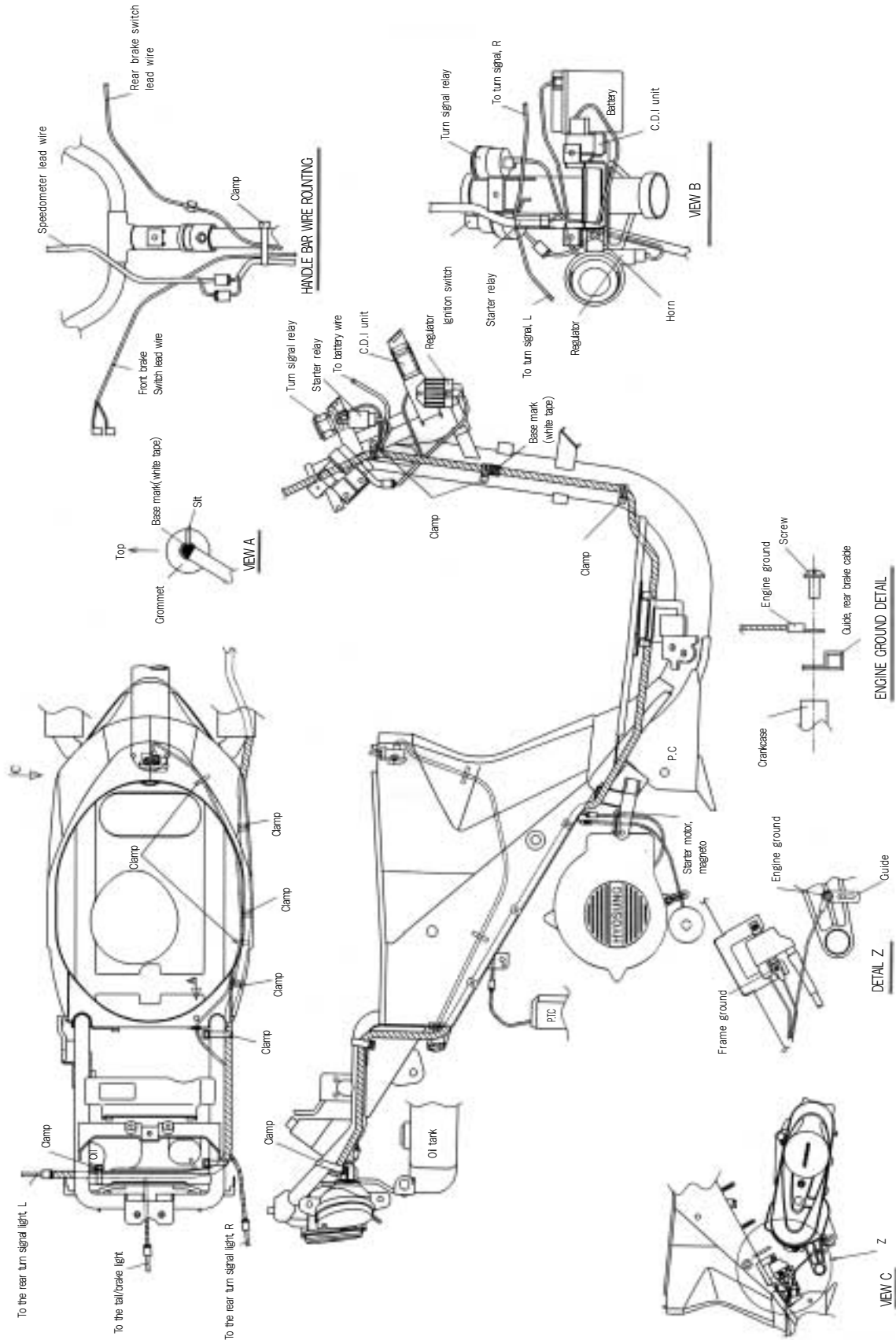
WIRING DIAGRAM



WIRE COLOR

- B : Black
- Br : Brown
- C : Green
- Gr : Gray
- L : Blue
- Lg : Light green
- O : Orange
- R : Red
- W : White
- Sb : Light blue
- Y : Yellow
- BR : Black with Red tracer
- BW : Black with White tracer
- WR : White with Red tracer
- WB : White with Black tracer
- YL : Yellow with Light blue tracer
- YB : Yellow with Black tracer
- YG : Yellow with Green tracer
- YW : Yellow with White tracer
- RB : Red with Black tracer
- WL : White with Blue tracer

WIRE, CABLE AND HOSE ROUTING



7-7 SERVICING INFORMATION

SERVICE DATA

CYLINDER + PISTON + PISTON RING

Unit : mm (in)

ITEM	STANDARD			LIMIT
Piston to cylinder clearance	0.065-0.075 (0.0026-0.0030)			0.120 (0.0047)
Cylinder bore	41.005-41.020 (1.6143-1.6120) Measure at 20(0.8) from the top surface			41.07 (1.6169)
Piston diam	40.935-40.950 (1.6116-1.6122) Measure at 20(0.8) from the skirt end			40.885 (1.6096)
Cylinder distortion	—————			0.1 (0.004)
Cylinder head distortion	—————			0.1 (0.004)
Piston ring free end gap	1st	R	Approx. 4.5(0.18)	3.7(0.15)
	2nd		Approx. 4.3(0.17)	
Piston ring end gap	0.10-0.25 (0.004-0.010)			0.75 (0.030)
Piston ring groove clearance	1st	0.02-0.06 (0.0008-0.0024)		—————
	2nd	0.02-0.06 (0.0008-0.0024)		—————
Piston pin bore	(0.002-10.010 (0.3938-0.3941))			10.036 (0.4079)
Piston pin O.D.	9.995-10.000 (0.3935-0.3937)			9.980 (0.3929)

CONROD + CRANKSHAFT

Unit : mm (in)

ITEM	STANDARD	LIMIT
Conrod small end I.D.	14.003-14.011 (0.5513-0.5516)	14.047 (0.5530)
Conrod deflection	—————	3.0 (0.12)
Crank web to wed width	35±0.1 (1.378±0.004)	—————
Crankshaft runout	—————	0.05 (0.002)

OIL PUMP

ITEM	STANDARD
Oil pump reduction ratio	30.000(30/1)
CCI pump discharge rate (Full open)	0.9-1.1 ml (0.030/0.032-0.037/0.039 US/Imp oz) for 5 minutes at 3000 r/min

CLUTCH

Unit : mm (in)

ITEM	STANDARD	LIMIT
Clutch Wheel I.D.	110-110.15 (4.3307-4.3366)	110.35 (4.344)
Clutch shoe thickness	3.0 (0.118)	2.0 (0.08)
Clutch engagement	3300±300 r/min	————
Clutch lock-up	5800±500 r/min	————

TRANSMISSION+DRIVE CHAIN

Unit : mm (in) Except ratio

ITEM	STANDARD	LIMIT
Final reduction ratio	12.0	————
Gear ratio	Variable 2.815-0.866	————
Drive belt width	16.5 (0.650)	15.3 (0.602)
Driven face spring free length	110.0 (4.33)	104.5 (4.11)

CARBURETOR

ITEM	SPECIFICATION
Carburetor type	SIDERAFT VARIABLE VENTURI
Bore size	14 mm
I.D. No.	PA35E
Idle r/min	1800±50 rpm
Pilot air jet (P.A.T.)	1.0mm
Main jet (M.J.)	# 76
Main air jet (M.A.J.)	φ 2.0
Jet needle (J.N.)	J68A-2
Needle jet (N.J.)	φ 2.1
Cut-away(C.A.)	# 3.5
Pilot jet (P.J.)	# 3.5
Throttle cable play	0.5-1.0mm(0.02-0.04in)

ELECTRICAL

Unit : mm (in)

ITEM	SPECIFICATION		NOTE
Ignition timing	B.T.D.C. 23° at 4000 r/min		
Spark plug	Type	L87YC BP6HS	
	Gap	0.6-0.7 (0.024-0.028)	

7-9 SERVICING INFORMATION

ITEM		SPECIFICATION	NOTE
Spark performance		Over 8(0.3) at 1 atm	
Ignition coil resistance		Secondary 14-20 k Ω	
Magneto coil resistance		Lighting 0.6-1.4 Ω	Y/W-Ground
		Charging 0.6-1.4 Ω	W/R-Ground
		Exciting 180-230 Ω	R/B-Ground
Regulated voltage		14-15V at 5000 r/min	
Starter motor brush length		Limit: 4.0(0.15)	
Commutator under-cut		Limit: 0.2(0.008)	
Starter relay resistance		0-70 Ω	
Battery	Type designation	YTX4L-BS	
	Capacity	12V 3Ah/10HR	
	Standard electrolyte S.G.	1.32 at 20°C (68°F)	
Fuse size		10A	

WATTAGE

Unit : W

ITEM		SPECIFICATION
Headlight	POSITION	3 × 2 EA
	LO	15 × 2 EA
Tail/ Brake light		5/21
Front turn signal light		21
Rear turn signal light		10
Speedometer light		3.4 × 2 EA
Oil level indicator light		1.7
Turn signal indicator light		1.7
Trunk light		2

BRAKE+WHEEL

Unit : mm (in)

ITEM		STANDARD	LIMIT
Brake lever play	Front	5-20(0.2-0.8)	————
	Rear	15-25(0.6-1.0)	————
Brake drum I.D.	Rear	100 (3.94)	100.7 (3.96)
Brake lining thickness	Rear	99.2 (3.91)	96 (3.78)
Brake disc thickness	Front	4.0±0.2 (0.157±0.008)	3.5 (0.14)
Brake disc runout	Front	————	0.30 (0.012)
Master cylinder bore	Front	11.000-11.043 (0.4331-0.4348)	————
Master cylinder piston diam.	Front	10.957-10.984 (0.4314-0.4324)	————

SERVICING INFORMATION 7-10

ITEM	STANDARD		LIMIT
Brake caliper cylinder bore	Front	30.230-30.306 (1.1902-1.1931)	_____
Brake caliper piston diam.	Front	30.150-30.200 (1.1870-1.1890)	_____
Wheel rim runout	Axial	_____	3.0 (0.12)
	Radial	_____	3.0 (0.12)
Wheel axle runout	Front	_____	0.25 (0.010)
Tire size	Front	100/80-10 53J	_____
	Rear	100/80-10 53J	_____
Tire tread depth	Front	_____	1.6 (0.06)
	Rear	_____	1.6 (0.06)

SUSPENSION

Unit: mm (in)

ITEM	SPECIFICATION	LIMIT	NOTE
Front fork stroke	70 (2.7)	_____	
Rear wheel travel	65 (2.6)	_____	

TIRE PRESSURE

COLD INFLATION TIRE PRESSURE	SOLO RIDING			DUAL RIDING		
	kPa	kg/cm ²	psi	kPa	kg/cm ²	psi
FRONT	125	1.25	18	-	-	-
REAR	200	2.00	29	-	-	-

FUEL + OIL

ITEM	SPECIFICATION		NOTE
Fuel type	Gasoline used should be graded 85-95 octane or higher. An unleaded gasoline is recommended.		
Fuel tank capacity	4.8 L (1.3/1.1 US/Imp gal)		
Engine oil type	Use APOLLOIL BIKE-K or HYPOL HS or an equivalent good quality synthetic based 2-cycle oil.		
Engine oil tank capacity	1.2 L (1.2/1.0 US/Imp qt)		
Final gear oil type	SAE 10W/40		
Final gear oil capacity	Change	80 ml (2.7/2.8 US/Imp oz)	
	Overhaul	90 ml (3.0/3.2 US/Imp oz)	
Brake fluid type	DOT4		

7-11 SERVICING INFORMATION

TROUBLESHOOTING

ENGINE

Complaint	Symptom and possible causes	Remedy
Engine does not start, or is hard to start.	<p>Compression too low</p> <ol style="list-style-type: none"> Excessively worn cylinder or piston rings. Stiff piston ring in place. Gas leaks from the joint in crankcase, cylinder or cylinder head. Damaged reed valve. Spark plug too loose. Broken, cracked or otherwise failed piston. <p>Plug not sparking</p> <ol style="list-style-type: none"> Damaged spark plug or spark plug cap. Dirty or wet spark plug. Defective CDI & Ignition coil unit or stator coil. Open or short in high-tension cord. Defective ignition switch. <p>No fuel reaching the carburetor</p> <ol style="list-style-type: none"> Clogged hole in the fuel tank cap. Clogged or defective fuel cock. Defective carburetor float valve. Clogged fuel hose or defective vacuum hose. 	<p>Replace. Repair or replace. Repair or replace. Replace. Tighten. Replace.</p> <p>Replace. Clean and dry. Replace. Replace. Replace.</p> <p>Clean. Clean or replace. Replace. Clean or replace.</p>
Engine stalls easily.	<ol style="list-style-type: none"> Carbon deposited on the spark plug. Defective CDI & Ignition coil unit. Clogged fuel hose. Clogged jets in carburetor. Clogged exhaust pipe. 	<p>Clean. Replace. Clean. Clean. Clean.</p>
Noisy engine.	<p>Noise appears to come from piston</p> <ol style="list-style-type: none"> Piston or cylinder worn down. Combustion chamber fouled with carbon. Piston pin, bearing or piston pin bore worn. Piston rings or ring grooves worn. <p>Noise seems to come from crankshaft</p> <ol style="list-style-type: none"> Worn or brunt crankshaft bearings. Worn or brunt conrod big-end bearings. <p>Noise seems to come from final gear box</p> <ol style="list-style-type: none"> Gears worn or rubbing. Badly worn splines. Worn or damaged bearings of drive shaft for rear axle shaft. 	<p>Replace. Clean. Replace. Replace.</p> <p>Replace. Replace.</p> <p>Replace. Replace. Replace.</p>
Slipping clutch	<ol style="list-style-type: none"> Worn or damaged clutch shoes. Worn clutch drum. 	<p>Replace. Replace.</p>
Engine idles poorly.	<ol style="list-style-type: none"> Excessively worn cylinder or piston rings. Stiff piston ring in place. Gas leaks from crankshaft oil seal. Spark plug gaps too wide. Defective CDI & Ignition coil unit. Defective magneto stator coil. Float-chamber fuel level out of adjustment in carburetor. Clogged jets in carburetor. Broken or damaged reed valve. 	<p>Replace. Replace. Replace. Adjust or replace. Replace. Replace. Replace. Clean or adjust. Replace.</p>

Complaint	Symptom and possible causes	Remedy
Engine runs poorly in high-speed range.	<ol style="list-style-type: none"> 1. Excessively worn cylinder or piston rings. 2. Stiff piston ring in place. 3. Spark plug gaps too narrow. 4. Ignition not advanced sufficiently due to poorly working CDI & Ignition coil unit. 5. Defective magneto stator coil. 6. Float-chamber fuel level too low. 7. Clogged air cleaner element. 8. Clogged fuel hose, resulting in inadequate fuel supply to carburetor. 9. Clogged fuel cock vacuum pipe. 	<p>Replace. Replace. Adjust. Replace.</p> <p>Replace. Adjust or replace. Clean Clean, and prime. Clean.</p>
Dirty or heavy exhaust smoke.	<ol style="list-style-type: none"> 1. Too much engine oil to the engine. 2. Use of incorrect engine oil. 	<p>Check oil pump. Change.</p>
Engine lacks power.	<ol style="list-style-type: none"> 1. Excessively worn cylinder or piston rings. 2. Stiff piston ring in place. 3. Gas leaks from crankshaft oil seal. 4. Spark plug gaps incorrect. 5. Clogged jets in carburetor. 6. Float-chamber fuel level out of adjustment. 7. Clogged air cleaner element. 8. Fouled spark plug. 9. Sucking air from intake pipe. 10. Slipping or worn V-belt. 11. Damaged/worn rollers in the movable drive face. 12. Weakened movable driven face spring. 13. Too rich fuel/air mixture due to defective starter system. 	<p>Replace. Replace. Replace. Adjust or replace. Clean. Adjust or replace. Clean. Clean or replace. Retighten or replace. Replace. Replace. Replace. Replace.</p>
Engine overheats.	<ol style="list-style-type: none"> 1. Heavy carbon deposit on piston crown. 2. Defective oil pump or clogged oil circuit. 3. Fuel level too low in float chamber. 4. Air leakage from intake pipe. 5. Use of incorrect engine oil. 6. Use of improper spark plug. 7. Clogged exhaust pipe/muffler. 	<p>Clean. Replace or clean. Adjust or replace. Retighten or replace. Change. Change. Clean or replace.</p>

CARBURETOR

Complaint	Symptom and possible causes	Remedy
Trouble with starting.	<ol style="list-style-type: none"> 1. Starter jet is clogged. 2. Air leaking from a joint between starter body and carburetor. 3. Air leaking from carburetor's joint or vacuum hose joint. 4. Starter plunger is not operating properly. 	<p>Clean. Check starter body and carburetor for tightness, and replace gasket. Check and replace. Check and replace.</p>
Idling or low-speed trouble.	<ol style="list-style-type: none"> 1. Pilot jet, pilot air jet are clogged or loose. 2. Air leaking from carburetor's joint, vacuum pipe joint, or starter. 3. Pilot outlet is clogged. 4. Starter plunger is not fully closed. 	<p>Check and clean. Clean and replace. Check and clean. Check and replace.</p>
Medium or high-speed trouble.	<ol style="list-style-type: none"> 1. Main jet or main air jet is clogged. 2. Needle jet is clogged. 3. Fuel level is improperly set. 4. Throttle valve is not operating properly. 5. Fuel filter is clogged. 	<p>Check and clean. Check and clean. Check and replace. Check throttle valve for operation. Check and clean.</p>
Overflow and fuel level fluctuations.	<ol style="list-style-type: none"> 1. Needle valve is worn or damaged. 2. Spring in deedle valve is broken. 3. Float is not working properly. 4. Foreign matter has adhered to needle valve. 5. Fuel level is too high or low. 	<p>Replace. Replace. Check and adjust. Clean. Adjust or replace.</p>

7-13 SERVICING INFORMATION

ELECTRICAL

Complaint	Symptom and possible causes	Remedy
No sparking or poor sparking.	<ol style="list-style-type: none"> 1. Defective CDI & Ignition coil unit. 2. Defective spark plug. 3. Defective magneto stator coil. 4. Loose connection of lead wire. 	Replace. Replace. Replace. Connect/tighten.
Spark plug soon becomes fouled with carbon.	<ol style="list-style-type: none"> 1. Mixture too rich. 2. Idling speed set too high. 3. Incorrect gasoline. 4. Dirty element in air cleaner. 5. Spark plug too cold. 6. Incorrect engine oil. 	Adjust carburetor. Adjust carburetor. Change. Clean. Replace by hot type plug. Replace.
Spark plug electrodes overheat or burn.	<ol style="list-style-type: none"> 1. Spark plug too hot. 2. The engine overheats. 3. Spark plug loose. 4. Mixture too lean. 5. Not enough engine oil. 	Replace by hot type plug. Turn up. Retighten. Adjust carburetor. Check oil pump.
Magneto does not charge.	<ol style="list-style-type: none"> 1. Open or short in lead wires, or loose lead connections. 2. Shorted, grounded or open magneto coil. 3. Shorted or open regulator/rectifier. 	Repair, replace or retighten. Replace. Replace.
Magneto charge, but charging rate is below the specifications.	<ol style="list-style-type: none"> 1. Lead wires tend to get shorted or open-circuited or loosely connected at terminal. 2. Grounded or open-circuited stator coils of magneto. 3. Defective regulator/rectifier. 4. Defective cell plates in the battery. 	Repair, or retighten. Replace. Replace. Replace the battery.
Magneto overcharges	<ol style="list-style-type: none"> 1. Internal short-circuit in the battery. 2. Resistor element in the regulator/rectifier damaged or defective. 3. Regulator/rectifier unit poorly grounded. 	Replace the battery. Replace. Clean and tighten ground connection.
Unstable charging.	<ol style="list-style-type: none"> 1. Lead wire insulation frayed due to vibration, resulting in intermittent shorting. 2. Magneto coil internally shorted. 3. Defective regulator/rectifier. 	Repair or replace. Replace. Replace.
Starter button is not effective.	<ol style="list-style-type: none"> 1. Battery run down. 2. Defective switch contacts. 3. Brushes not seating properly on commutator in starter motor. 4. Defective starter relay. 5. Defective starter pinion gears. 6. Defective front or rear brake light switch circuit. 	Recharge or replace. Replace. Repair or replace. Replace. Replace. Replace or repair.

BATTERY

Complaint	Symptom and possible causes	Remedy
Battery runs down quickly.	<ol style="list-style-type: none"> 1. The charging method is not correct. 2. Cell plates have lost much of their active material as a result of over-charging. 3. A short-circuit condition exists within the battery due to excessive accumulation of sediments caused by the incorrect electrolyte. 4. Battery is too old. 	Check the magneto and regulator/rectifier circuit connections, and make necessary adjustments to obtain specified charging operation. Replace the battery, and correct the charging system. Replace the battery. Replace the battery.
Reversed battery polarity.	<ol style="list-style-type: none"> 1. The battery has been connected the wrong way round in the system, so that it is being charged in the reverse direction. 	Replace the battery and be sure to connect the battery properly.
Battery discharges too rapidly.	<ol style="list-style-type: none"> 1. Dirty container top and sides. 2. Battery is too old. 	Clean. Replace.

CHASSIS

Complaint	Symptom and possible causes	Remedy
Handling feels too heavy.	<ol style="list-style-type: none"> 1. Steering stem nut overtightened. 2. Broken bearing/race in steering stem. 3. Distorted steering stem. 4. Not enough pressure in tires. 	Adjust. Replace. Replace. Adjust.
Wobbly handle.	<ol style="list-style-type: none"> 1. Loss of balance between right and left front suspension. 2. Distorted front axle or crooked tire. 	Replace. Replace.
Wobbly front wheel.	<ol style="list-style-type: none"> 1. Distorted wheel rim. 2. Worn front wheel bearings. 3. Defective or incorrect tire. 4. Loose nut on axle. 5. Loose nuts on the rear shock. 6. Worn engine mounting bushing. 7. Loose nuts or bolts for engine mounting. 	Replace. Replace. Replace. Retighten. Retighten. Replace. Tighten.
Front suspension too soft.	<ol style="list-style-type: none"> 1. Weakened springs. 2. Oil leakage of shock absorber. 	Replace. Replace.
Front suspension too stiff.	<ol style="list-style-type: none"> 1. Not enough grease. 2. Worn suspension arm spacer. 	Refill. Replace.
Noisy front suspension.	<ol style="list-style-type: none"> 1. Not enough grease. 2. Loose nuts on suspension. 	Refill. Retighten.
Wobbly rear wheel.	<ol style="list-style-type: none"> 1. Distorted wheel rim. 2. Defective or incorrect tire. 3. Loose nuts on the rear shock absorber. 4. Worn engine mounting bushing. 5. Loose nuts or bolts for engine mounting. 	Replace. Replace. Replace. Replace. Retighten.
Rear suspension too soft.	<ol style="list-style-type: none"> 1. Weakened spring. 2. Oil leakage of rear shock absorber. 	Replace. Replace.
Noisy rear suspension.	<ol style="list-style-type: none"> 1. Loosen nuts on shock absorber. 2. Worn engine mounting bushing. 	Retighten. Replace.

BRAKES

Complaint	Symptom and possible causes	Remedy
Insufficient brake power.	<ol style="list-style-type: none"> 1. Leakage of brake fluid from hydraulic system. 2. Worn pad. 3. Oil adhesion on engaging surface of pad. 4. Worn disc. 5. Air entered into hydraulic system. 6. Worn shoe. 7. Friction surfaces of shoes are dirty with oil. 8. Excessively worn drum. 9. Too much brake lever play. 	Repair or replace. Replace. Clean disc and pads. Replace. Bleed air. Replace. Replace. Replace. Replace. Adjust.
Brake squeaking.	<ol style="list-style-type: none"> 1. Carbon adhesion on pad surface. 2. Tilted pad. 3. Damaged wheel bearing. 4. Worn pad. 5. Foreign substance entered into brake fluid. 6. Clogged return ports of master cylinder. 7. Brake shoe surface glazed. 8. Loose front-wheel axle or rear-wheel axle nut. 9. Worn shoe. 	Repair surface with sandpaper. Modify and fitting. Replace. Replace. Replace brake fluid. Disassemble and clean master cylinder. Repair surface with sandpaper. Tighten to specified torque. Replace.

7-15 SERVICING INFORMATION

Complaint	Symptom and possible causes	Remedy
Excessive brake lever stroke.	<ol style="list-style-type: none"><li data-bbox="418 331 699 353">1. Air entered into hydraulic system.<li data-bbox="418 356 613 378">2. Insufficient brake fluid.<li data-bbox="418 409 678 432">3. Improper quality of brake fluid.<li data-bbox="418 434 618 456">4. Worn brake cam lever.<li data-bbox="418 459 727 481">5. Excessively worn shoes and/or drum.	Bleed air. Replenish fluid to normal level; bleed air. Replace with correct fluid. Replace. Replace.
Leakage of brake fluid.	<ol style="list-style-type: none"><li data-bbox="418 510 760 533">1. Insufficient tightening of connection joints.<li data-bbox="418 535 553 557">2. Cracked hose.<li data-bbox="418 560 574 582">3. Worn piston seal.	Tighten to specified torque. Replace. Replace.
Brake drags.	<ol style="list-style-type: none"><li data-bbox="418 611 597 633">1. Rusty moving parts.	Clean and lubricate.



Prepared by

HYOSUNG MOTORS & MACHINERY INC.

Overseas Service

2nd Ed. APR. 1999

Manual No. 99000-91201

Printed in Korea