

**SUZUKI**

**AY50**

**SERVICE MANUAL**



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## SPECIFICATIONS

### AY50

#### DIMENSIONS AND DRY MASS

Overall length.....	1 885 mm (74.2 in) ... P-39
	1 880 mm (74.0 in) ... P-22, 26
	1 865 mm (73.4 in) ... The others
Overall width.....	650 mm (25.6 in)
Overall height.....	1 125 mm (44.3 in)
Wheelbase.....	1 260 mm (49.6 in)
Ground clearance ...	105 mm (4.1 in) ... P-04, 22
	120 mm (4.7 in) ... The others
Seat height .....	790 mm (31.1 in)
Dry mass.....	77 kg (169 lbs)

#### ENGINE

Type.....	Two-stroke, forced air-cooled
Intake system .....	Reed valve
Number of cylinders ....	1
Bore.....	41.0 mm (1.614 in)
Stroke.....	37.4 mm (1.472 in)
Piston displacement ....	49 cm <sup>3</sup> (3.0 cu. in)
Corrected compression ratio.....	6.7 : 1 ... P-02, 22
	7.4 : 1 ... The others
Carburetor .....	KEIHIN PWS12 ... P-34
	KEIHIN PWS14 ... The others
Air cleaner .....	Polyurethane foam element
Starter system.....	Electric and kick
Lubrication system .....	SUZUKI "CCI"

#### TRANSMISSION

Clutch.....	Dry shoe, automatic, centrifugal type
Gearshifting.....	Automatic, variable ratio
Gear ratios, variable .....	Variable reduction ratio (2.768—0.871)
Final reduction ratio.....	12.800
	(51/15) × (64/17) ... P-26, 34
	14.960
	(51/15) × (66/15) ... The others
Drive system .....	V-belt drive

#### CHASSIS

Front suspension ....	Inverted telescopic, coil spring
Rear suspension .....	Swingarm type, coil spring, oil damped
Steering angle.....	45° (right & left)
Caster.....	25°18'
Trail .....	76.7 mm (3.0 in)
Turning radius.....	1.9 m (6.2 ft)
Front brake .....	Disc brake
Rear brake .....	Internal expanding
Front tire size.....	120/70-12 51J
Rear tire size.....	130/70-12 56J

#### ELECTRICAL

Ignition type .....	Electronic ignition (CDI)
Ignition timing.....	14° B.T.D.C. at 4 000 r/min
Spark plug .....	NGK BPR6HS, ND W20FPR-U or BOSCH WR7BC
Battery .....	12V 14.4 kC (4Ah)/10HR ... P-53
	12V 10.8 kC (3Ah)/10HR ... The others
Generator .....	Magneto
Fuse.....	10A
Headlight .....	12V 15W × 2
Brake light/taillight .....	12V 21/5W
Turn signal light.....	12V 10W

#### CAPACITIES

Fuel tank .....	6.8 L (1.5 Imp gal)
Engine oil tank .....	1.2 L (1.1 Imp qt)
Final gear oil.....	130 ml (4.6 Imp oz)

\* These specifications are subject to change without notice.

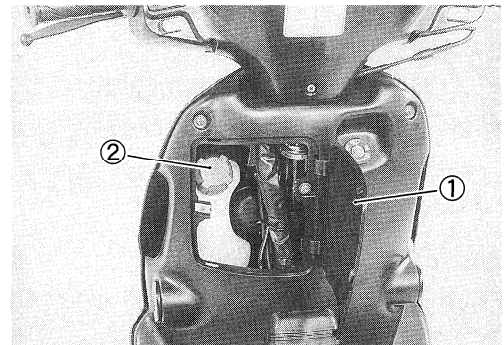
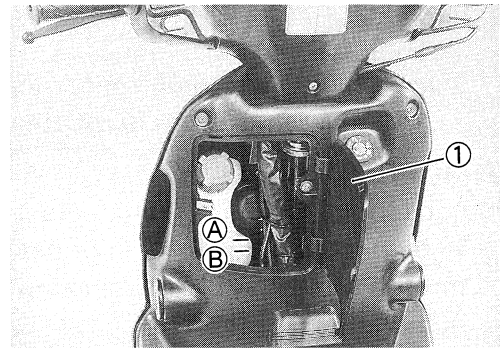
## COOLING SYSTEM (For AY50W)

**Inspect Every 3 000 km (6 months)**  
**Replace engine coolant Every 2 years**

### ENGINE COOLANT LEVEL CHECK

- Keep the motorcycle upright.
- Remove the engine coolant reservoir cover ①.
- Check the engine coolant level by observing the upper and lower lines on the engine coolant reservoir.
- If the level is below the lower line, add engine coolant to the upper line.

Ⓐ Upper line Ⓑ Lower line



### ENGINE COOLANT CHANGE

- Remove the frame cover (R) and side leg shield (R). (Refer to page 6-3.)
- Remove the engine coolant reservoir cover ①.
- Remove the engine coolant reservoir cap ② and disconnect the engine coolant hose ③ from the water pump. Then, drain the engine coolant.

### ⚠ WARNING

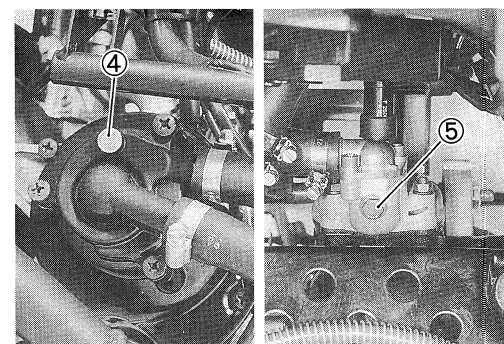
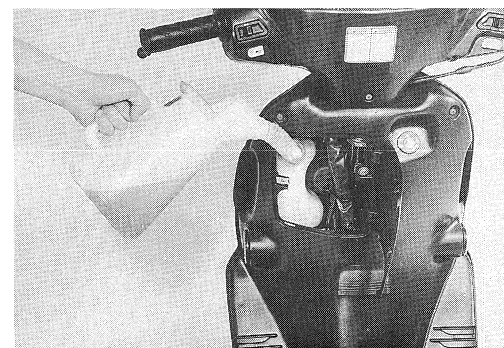
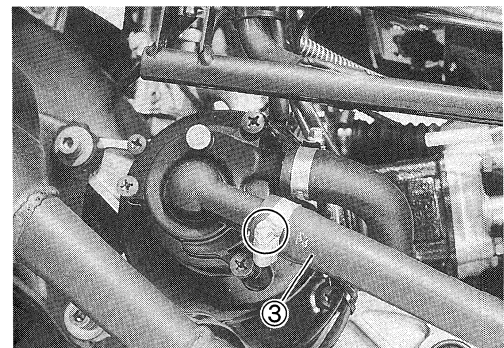
- \* **Do not open the engine coolant reservoir cap when the engine is hot, as you may be injured by escaping hot liquid or vapor.**
- \* **Engine coolant may be harmful if swallowed or if it comes in contact with the skin or eyes. If engine coolant gets into the eyes or contacts the skin, flush the eyes or wash the skin thoroughly, with plenty of water. If engine coolant is swallowed, induce vomiting and call a physician immediately.**

- Flush the radiator with fresh water, if necessary.
- Connect the engine coolant hose ③ securely.
- Pour the specified engine coolant up to the reservoir.
- Loosen the air bleeder bolts (④, ⑤) on the water pump cover and cylinder head.
- Tighten the air bleeder bolts when air has been bled and coolant comes out.

### NOTE:

For engine coolant information, refer to page 4-2.

- Install the engine coolant reservoir cap ② securely.
- After warming up and cooling down the engine, add the specified engine coolant to the upper line of the engine coolant reservoir.



## ENGINE COMPONENTS REMOVABLE WITH THE ENGINE IN PLACE

The parts listed below can be removed and reinstalled without removing the engine from the frame. Refer to the page listed in this section for removal instruction.

### ENGINE LEFT SIDE

Air cleaner.....	3-5
Kick starter lever.....	3-9
Clutch cover.....	3-9
Kick starter.....	3-9
Fixed drive fan.....	3-9
Fixed drive face.....	3-9
Movable drive face.....	3-9
Drive belt.....	3-10
Starter driven gear.....	3-10
Starter pinion gear.....	3-10
Clutch housing.....	3-10
Clutch shoe assembly.....	3-10

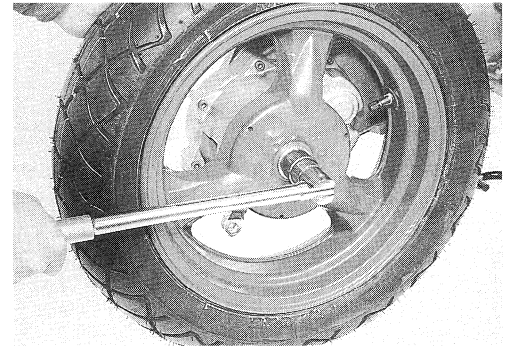
### ENGINE CENTER

Oil pump.....	3-5
Intake pipe.....	3-6
Reed valve.....	3-6
Cylinder head.....	3-8
Cylinder.....	3-8
Piston.....	3-8
Oil pump driven gear.....	3-8

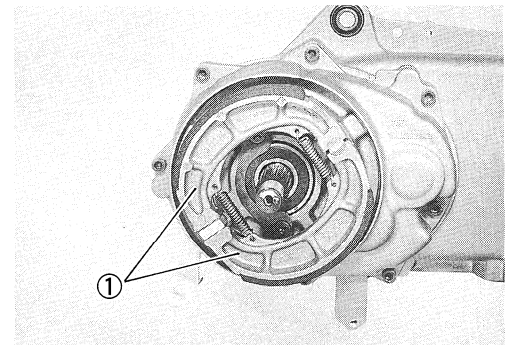
### ENGINE RIGHT SIDE

Muffler.....	3-5
Cooling fan (For AY50).....	3-6
Magneto rotor.....	3-7
Starter motor.....	3-9
Gear box cover.....	3-11
Final driven gear.....	3-11
Water pump (For AY50W).....	5-6

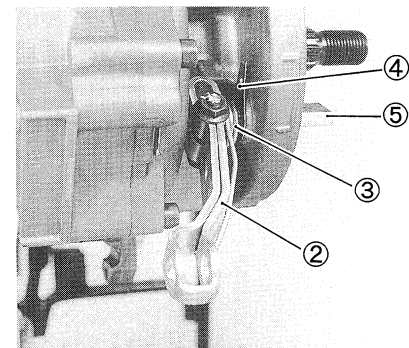
- Remove the rear wheel.



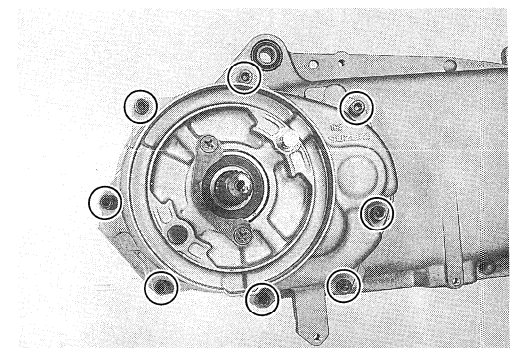
- Remove the brake shoes ①.



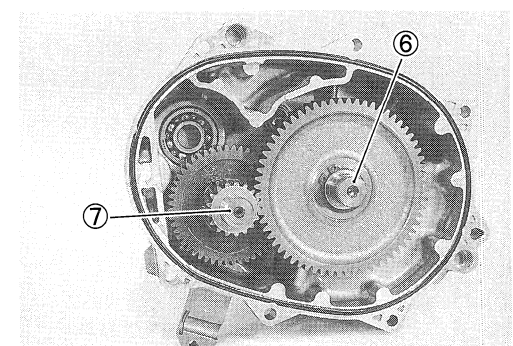
- Remove the brake cam lever ②, return spring ③, brake lining wear limit indicator ④ and brake camshaft ⑤.




- Remove the gear box cover.



- Remove the final driven gear with the rear axle shaft ⑥.
- Remove the idle shaft/gear ⑦.

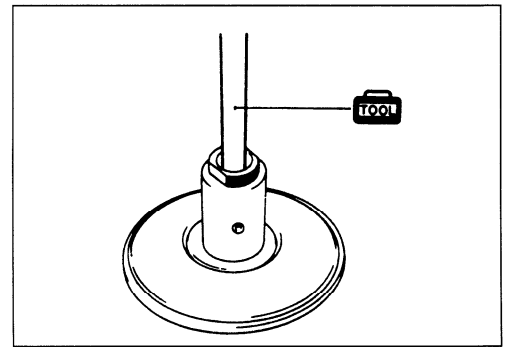


- Remove the bearing with the special tool.

 **09941-50111: Bearing remover**

**CAUTION**

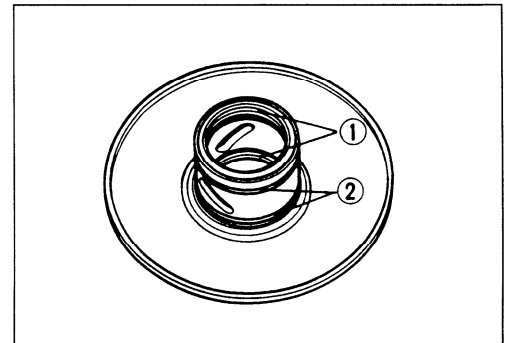
The removed bearing should be replaced with a new one.



- Remove the oil seals ① and O-rings ②.


**CAUTION**

The removed oil seals and O-rings should be replaced with new ones.



**CLUTCH SHOES**

Inspect the clutch shoes for chips, cracks, uneven wear and burning, and check the thickness of the shoes with vernier calipers. If the thickness is less than the service limit, replace the clutch shoes as a set.

 **09900-20101: Vernier calipers**

**Service Limit: 2.0 mm (0.08 in)**

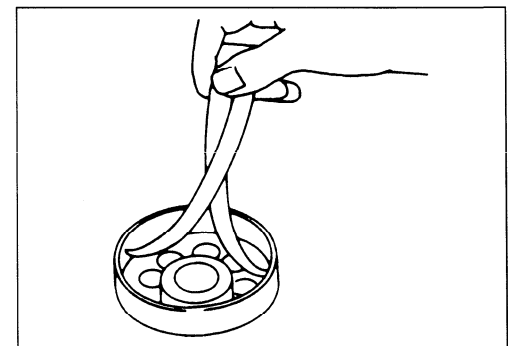
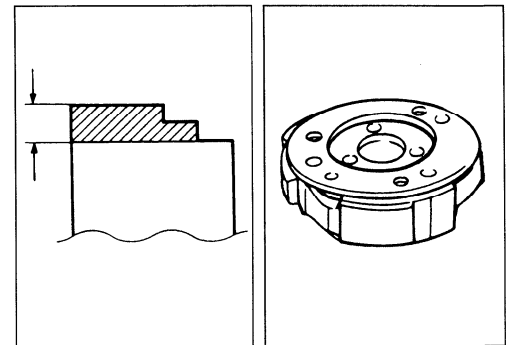
Inspect the clutch springs for stretched or broken coils.

**CAUTION**

Clutch shoes or springs must be replaced as a set.

Inspect the clutch housing surface for scuffing, cracks, or uneven wear. Measure the inside diameter of the clutch housing with inside calipers. Measure the diameter at several points to check for out-of-round and wear.

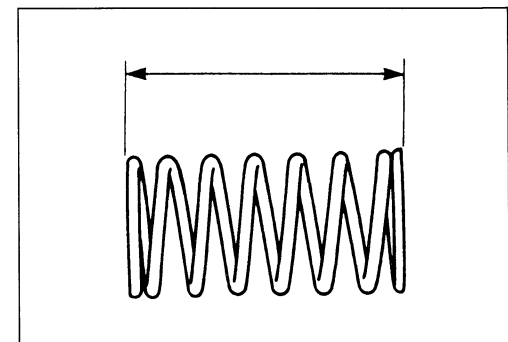
**Service Limit: 110.50 mm (4.350 in)**



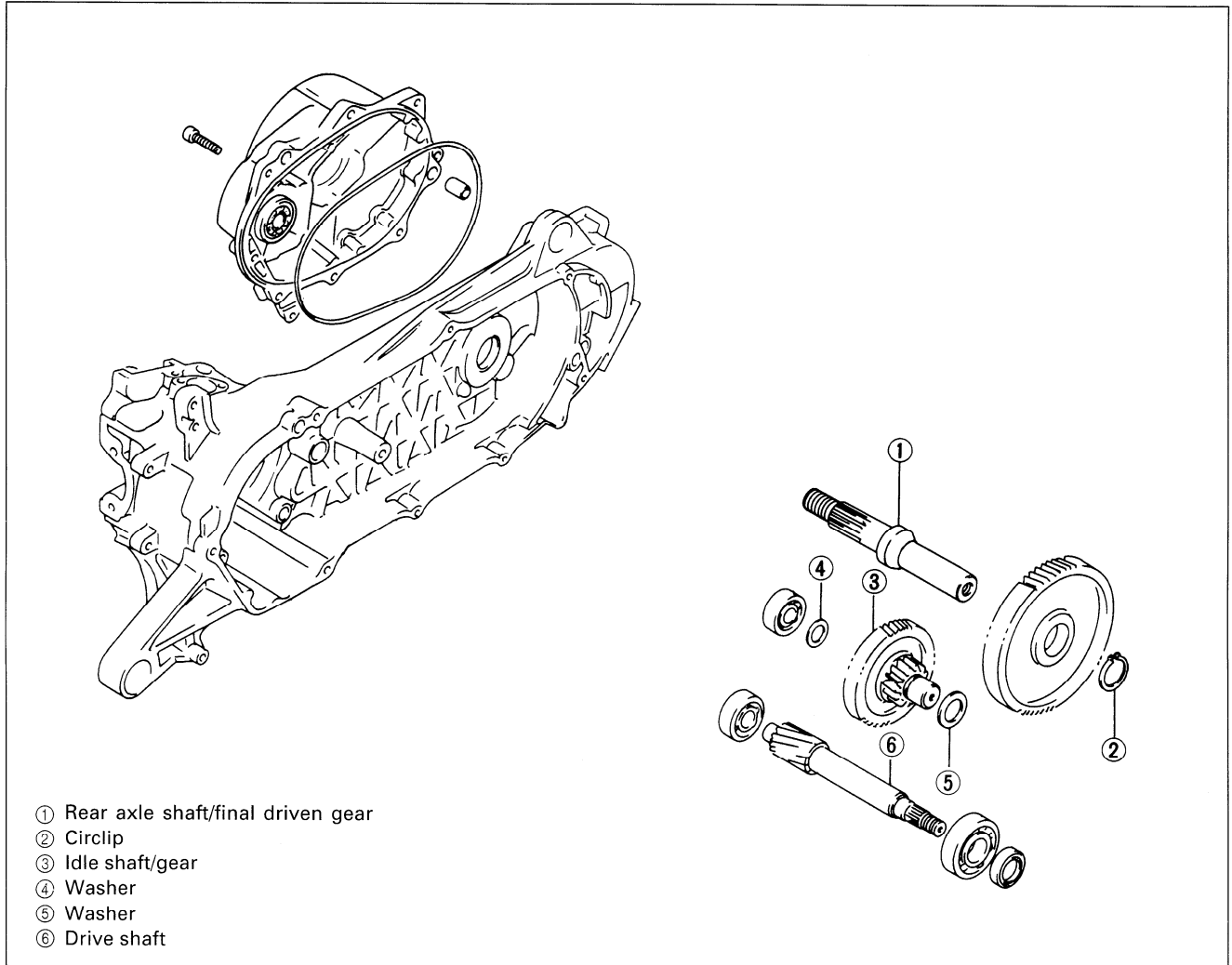
**DRIVEN FACE SPRING**

Measure the free length of the driven face spring. If the length is shorter than the service limit, replace the spring with a new one.

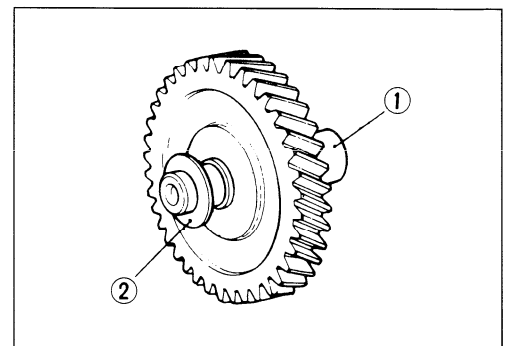
**Service Limit: AY50 (p-02, 04, 22, 37 and 39):**  
 104.5 mm (4.11 in)  
**AY50 (P-26, 34 and 53) and AY50W:**  
 71.6 mm (2.82 in)



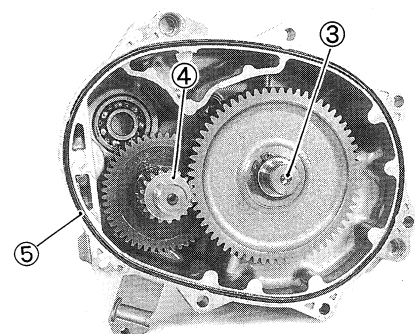
## REAR AXLE SHAFT AND TRANSMISSION



- Install the idle shaft/gear ①, with the thrust washer ②, into the gear box.



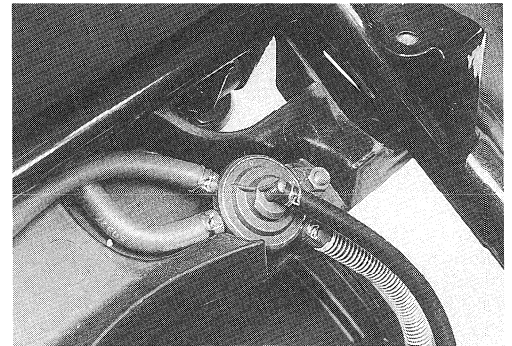
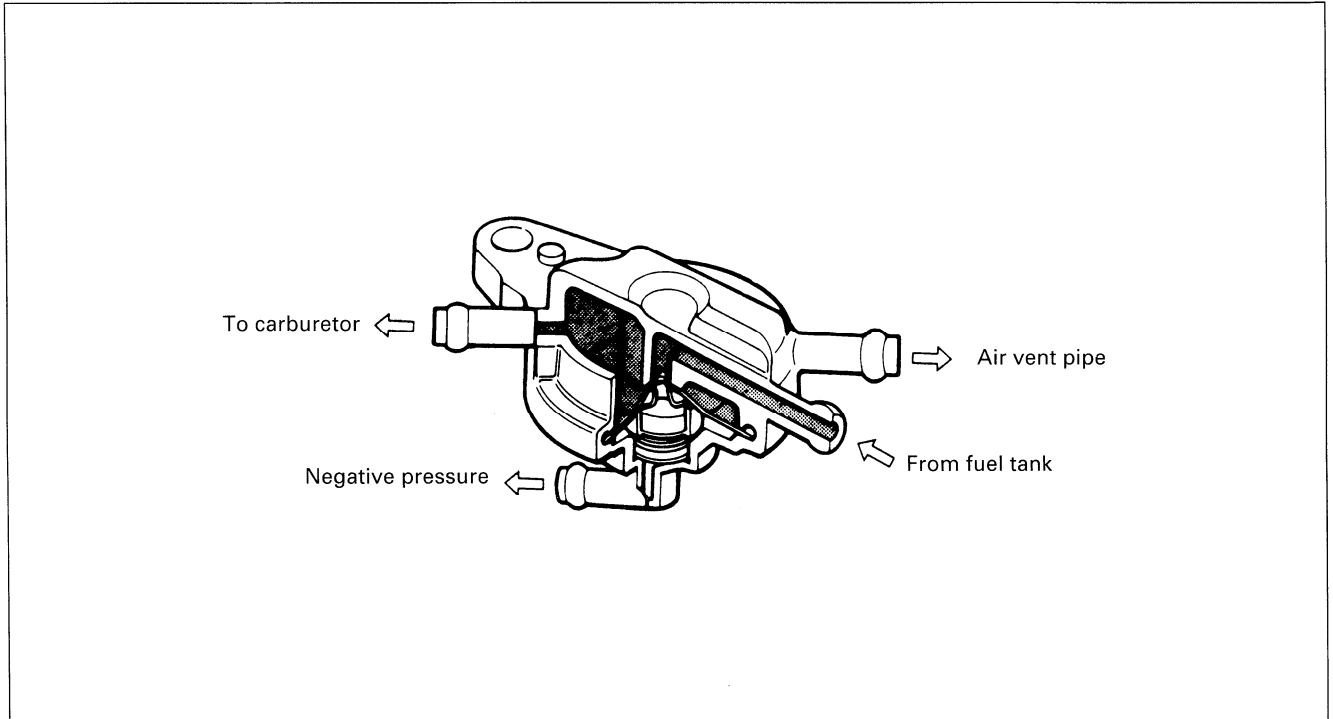
- Install the rear axle shaft with the final driven gear ③.
- Install the thrust washer ④.
- Install the new O-ring ⑤.



## FUEL VALVE

When the engine has started, negative pressure (vacuum) is generated at the intake port. The negative pressure causes the fuel valve diaphragm to compress its spring, opening the fuel passageway and allowing the fuel to flow to the carburetor.

When the engine has stopped, the spring pushes against the valve, closing the fuel passageway, and stopping the flow of fuel to the carburetor.

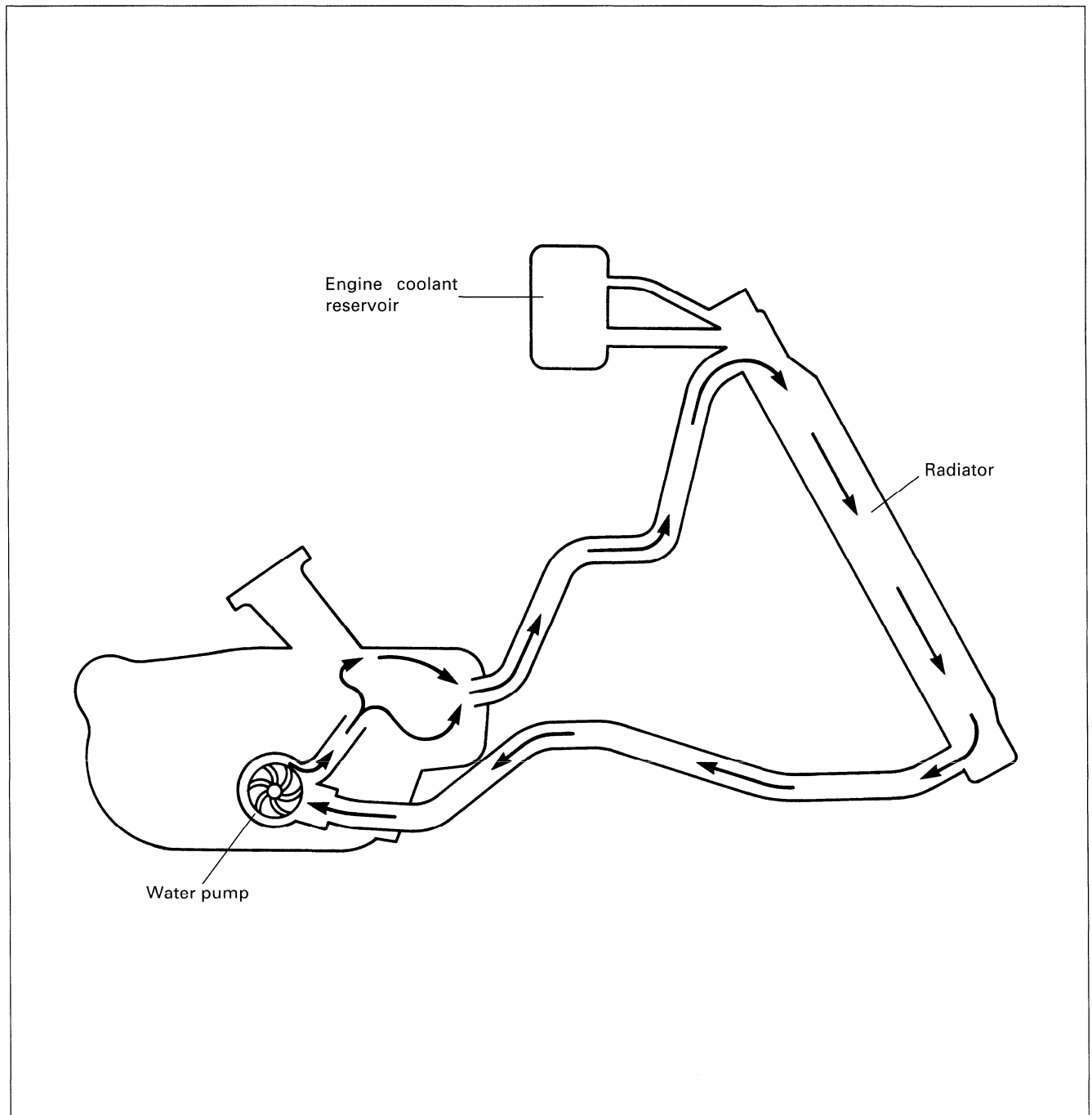


## COOLING SYSTEM

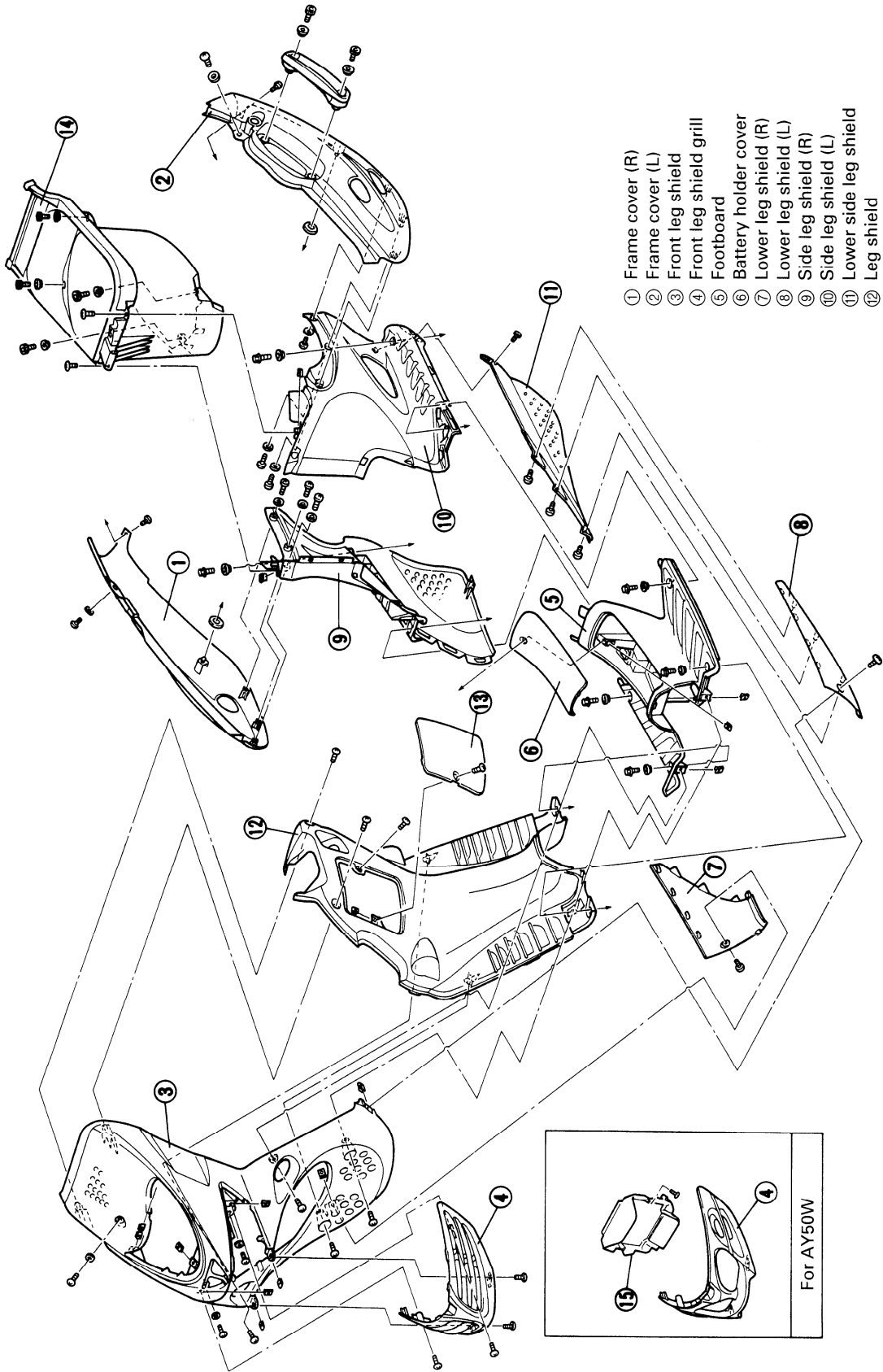
### DESCRIPTION

The engine in this motorcycle is liquid cooled with passages in the cylinder, cylinder head and radiator to allow the engine coolant to continually circulate during operation. The cooling system consists of a lightweight-aluminum radiator, a high-capacity, centrifugal water pump, a temperature switch and an engine coolant reservoir.

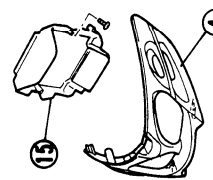
Refer to the following illustration for the cooling system routes.



# LEG SHIELDS AND FRAME COVERS



- ① Frame cover (R)
- ② Frame cover (L)
- ③ Front leg shield
- ④ Front leg shield grill
- ⑤ Footboard
- ⑥ Battery holder cover
- ⑦ Lower leg shield (R)
- ⑧ Lower leg shield (L)
- ⑨ Side leg shield (R)
- ⑩ Side leg shield (L)
- ⑪ Lower side leg shield
- ⑫ Leg shield
- ⑬ Engine coolant reservoir cover
- ⑭ Trunk
- ⑮ Radiator cover

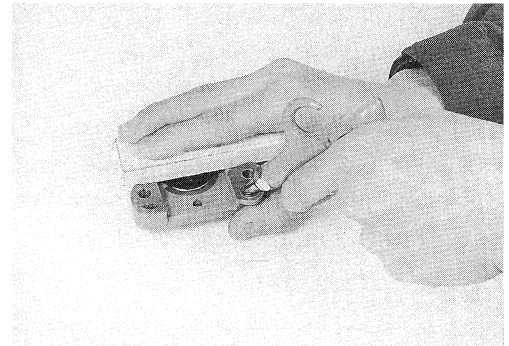


For AY50W

- Place a rag over the piston to prevent it from popping out and then force out the piston with compressed air.

**⚠ CAUTION**

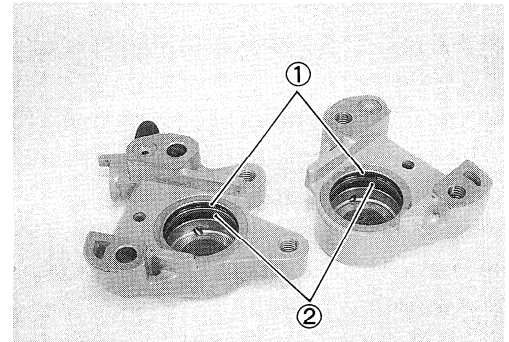
**Do not use high pressure air to prevent piston damage.**



- Remove the dust seals ① and piston seals ②.

**⚠ CAUTION**

**Do not reuse the dust seals and piston seals to prevent fluid leakage.**

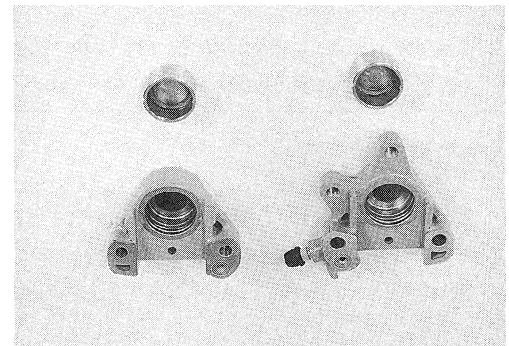


**BRAKE CALIPER INSPECTION**  
**CALIPER**

Inspect the caliper cylinder wall for nicks, scratches or other damage.

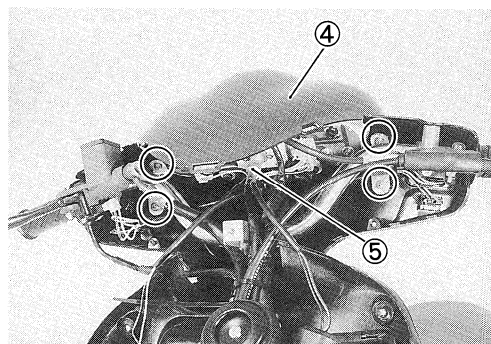
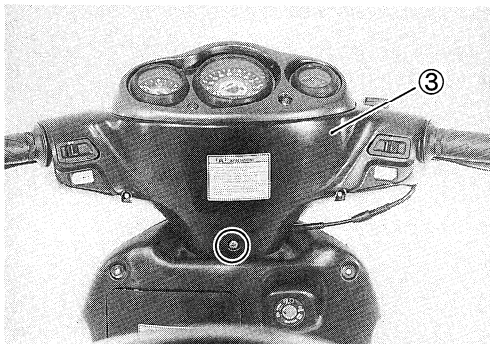
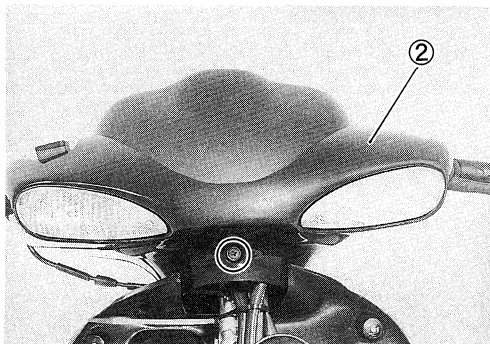
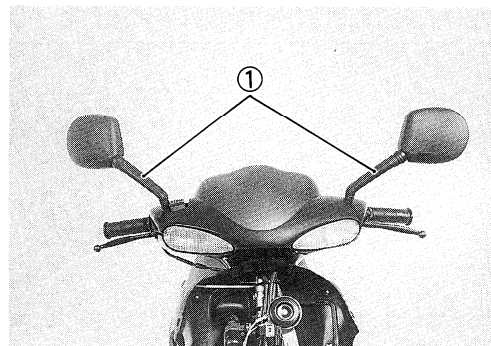
**PISTON**

Inspect the piston surface for scratches or other damage.



## REMOVAL

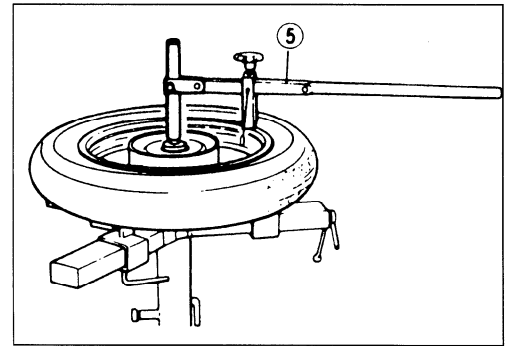
- Remove the front leg shield. (Refer to page 6-2.)
- Remove the rear view mirrors ①.
- Remove the front handlebar cover ②.
- Remove the rear handlebar cover ③.
- Remove the speedometer cover ④ and disconnect the speedometer cable ⑤.



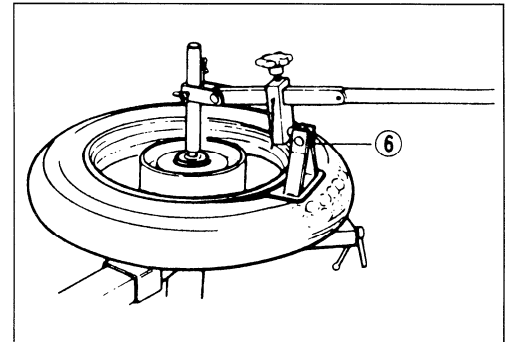
## REMOUNTING

Remount the handlebar covers and the speedometer cover in the reverse order of removal.

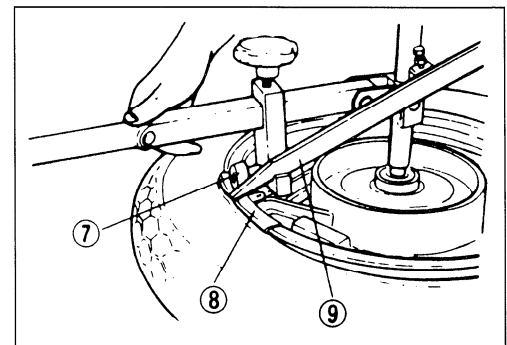
- Attach the operation arm ⑤ to the center shaft.



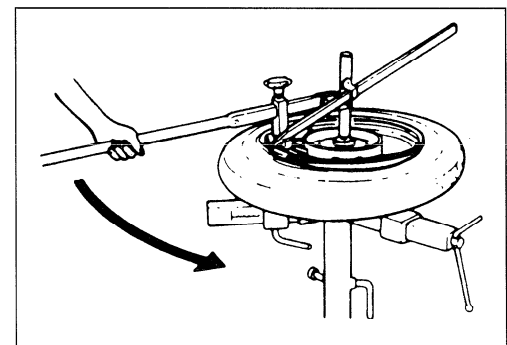
- Attach the bead breaker ⑥ to the operation arm and dismount the bead from the rim. Turn the wheel over and dismount the other bead from the rim.



- Install the rim guide roller ⑦.
- Install the rim protector ⑧ and raise the bead with the tire lever ⑨.



- Set the tire lever against the operation arm and rotate the lever around the rim. Repeat this procedure to remove the other bead from the rim.



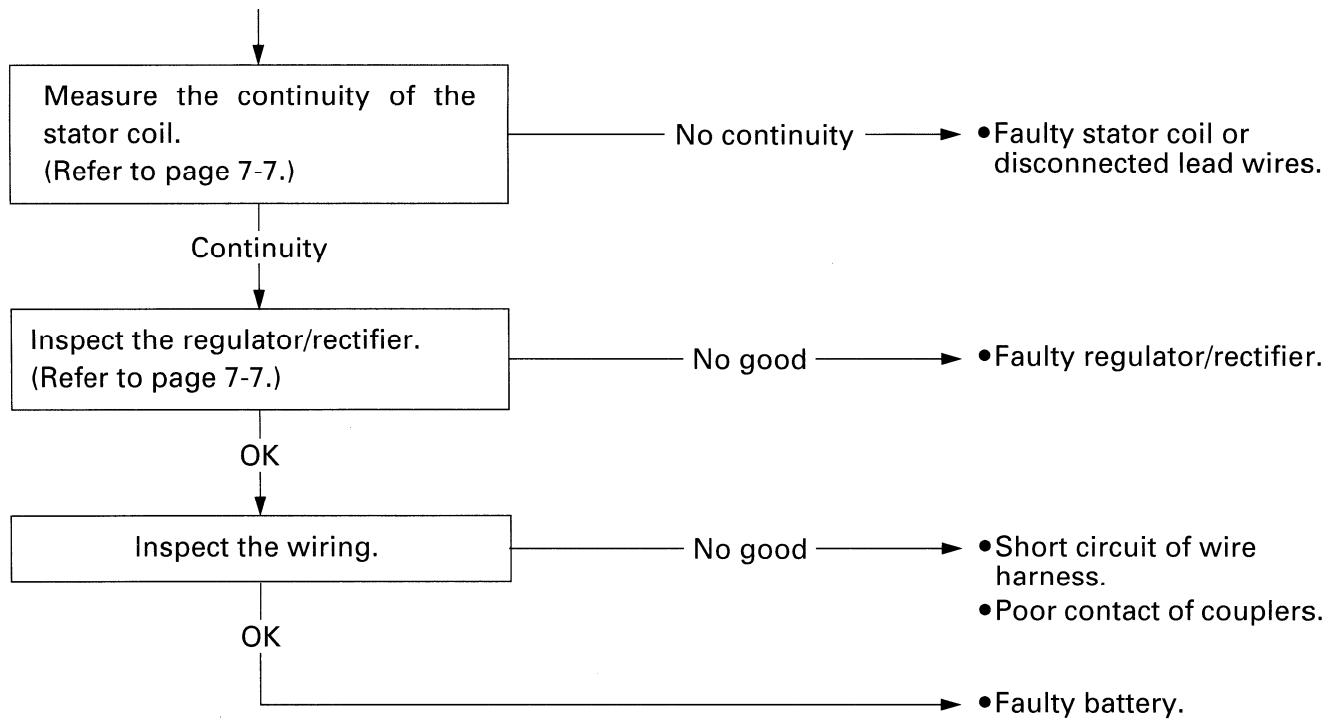
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### Others

Battery overcharge	<ul style="list-style-type: none"> <li>• Faulty regulator/rectifier</li> <li>• Faulty battery</li> <li>• Poor contact of regulator/rectifier coupler</li> </ul>
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## INSPECTION

### CHARGING OUTPUT CHECK


Start the engine and keep it running at 5 000 r/min with the lighting switch turned on.

Measure the DC voltage between the battery (⊕) and (⊖) terminals with a pocket tester.


If the tester reads under 13.5 V or over 15.5 V, check the continuity of the magneto stator coil or replace the regulator/rectifier.

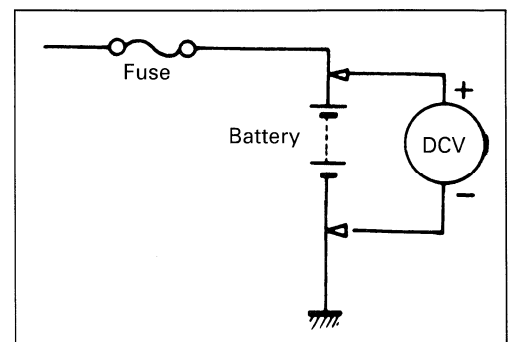
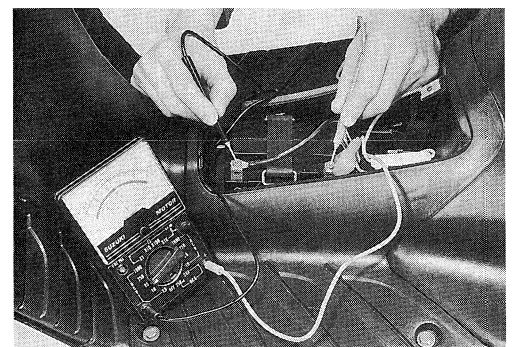
#### NOTE:

When making this test, be sure that the battery is fully-charged.

 **09900-25002: Pocket tester**

**09900-26006: Tachometer**


 **STD charging output: 13.5–15.5 V at 5000 r/min.**

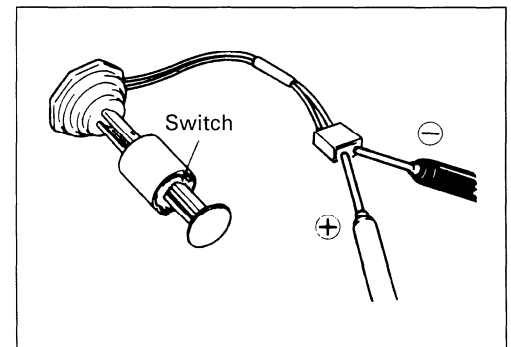


## OIL LEVEL INDICATOR SWITCH

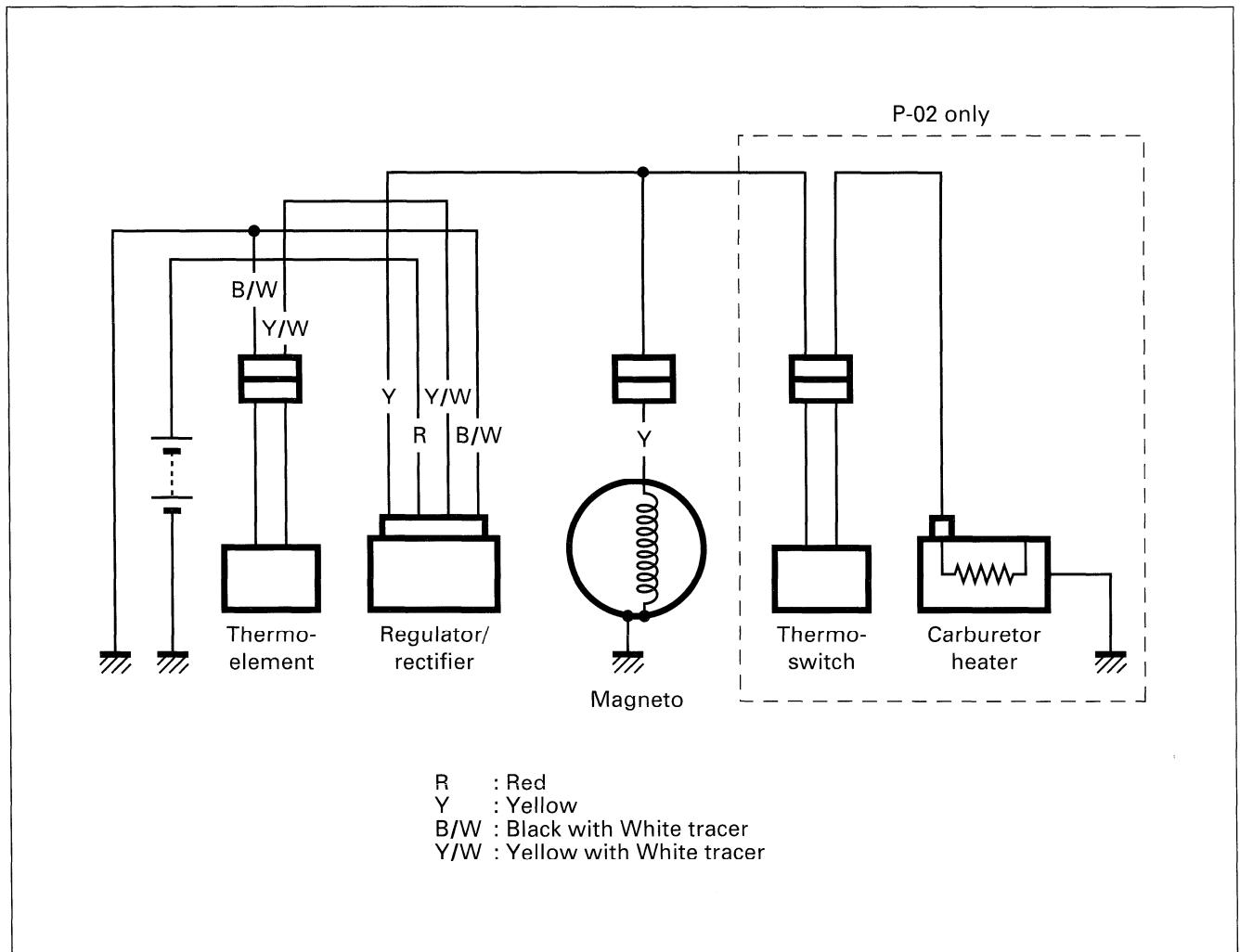
Measure the oil level indicator switch for continuity between the lead wires.

If the pocket tester does not indicate a value of 0-1  $\Omega$  when the switch is in the bottom position, file the contact surface or replace the oil level indicator switch.

 **09900-25002: Pocket tester**



## THERMOELEMENT AND CARBURETOR HEATER

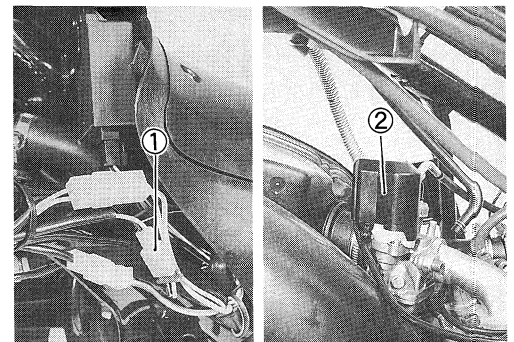


### INSPECTION

- Disconnect the thermoelement coupler ①.
- Connect the thermoelement ② coupler to a 12V battery.
- Wait five minutes and feel the thermoelement.
- The thermoelement should be approximately 36°C.
- If the appropriate temperature is not reached, replace the thermoelement.

#### NOTE:

*This check should be carried out when the carburetor is cold.*

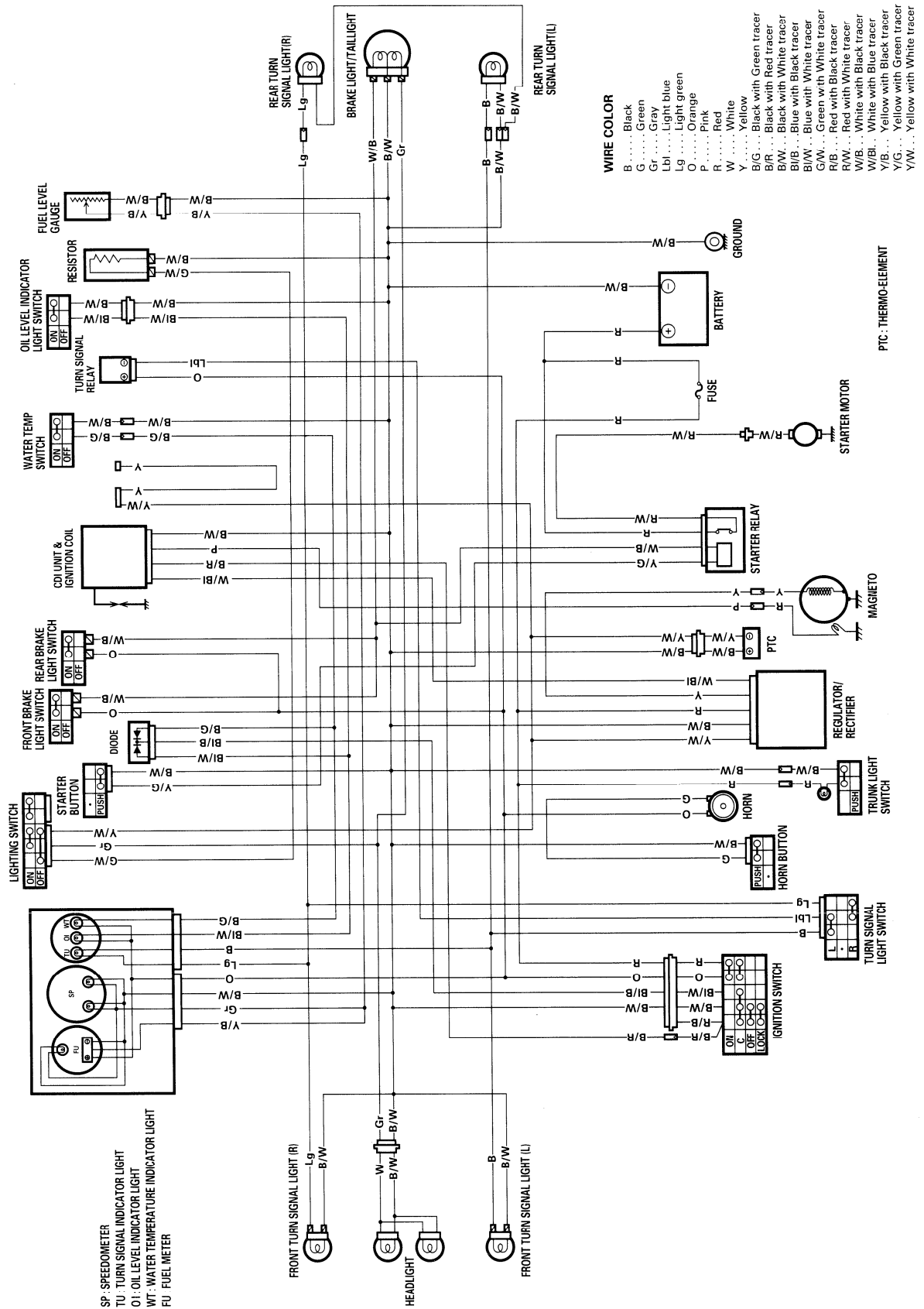


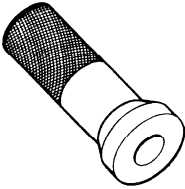
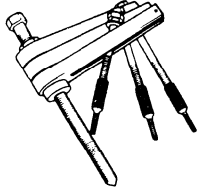
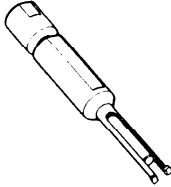


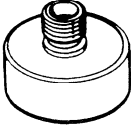
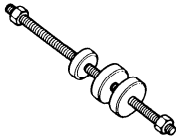
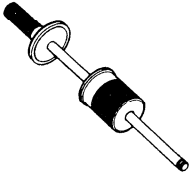
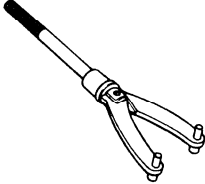
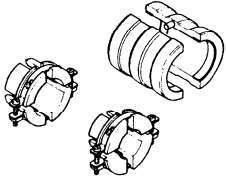
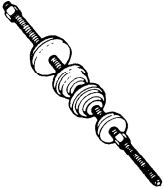
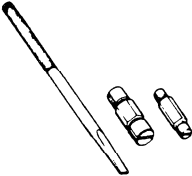

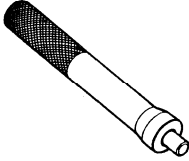
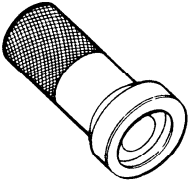
# TROUBLESHOOTING

## ENGINE

Complaint	Symptom and possible causes	Remedy
<b>Engine will not start or is hard to start.</b>	<p><b>Compression too low</b></p> <ol style="list-style-type: none"> <li>1. Excessively worn cylinder or piston rings.</li> <li>2. Stiff piston ring.</li> <li>3. Gas leaks from the joint in crankcase, cylinder or cylinder head.</li> <li>4. Damaged reed valve.</li> <li>5. Spark plug too loose.</li> <li>6. Broken, cracked or damaged piston.</li> </ol> <p><b>Spark plug not sparking</b></p> <ol style="list-style-type: none"> <li>1. Damaged spark plug or spark plug cap.</li> <li>2. Fouled spark plug.</li> <li>3. Defective CDI/ignition coil or stator coil.</li> <li>4. Open or short in high-tension cord.</li> <li>5. Defective ignition switch.</li> </ol> <p><b>No fuel reaching the carburetor</b></p> <ol style="list-style-type: none"> <li>1. Clogged hole in the fuel tank cap.</li> <li>2. Clogged or defective fuel valve.</li> <li>3. Defective carburetor needle valve.</li> <li>4. Clogged fuel hose or defective vacuum hose.</li> </ol>	<p>Replace. Repair or replace. Repair or replace.</p> <p>Replace. Tighten. Replace.</p> <p>Replace. Clean and dry. Replace. Replace. Replace.</p> <p>Clean. Clean or replace. Replace. Clean or replace.</p>
<b>Engine stalls easily.</b>	<ol style="list-style-type: none"> <li>1. Carbon deposited on the spark plug.</li> <li>2. Defective CDI/ignition coil.</li> <li>3. Clogged fuel hose.</li> <li>4. Clogged jets in carburetor.</li> <li>5. Clogged exhaust pipe.</li> </ol>	<p>Clean. Replace. Clean. Clean. Clean.</p>
<b>Noisy engine.</b>	<p><b>Noise appears to come from piston</b></p> <ol style="list-style-type: none"> <li>1. Worn down piston or cylinder.</li> <li>2. Carbon built-up in the combustion chamber.</li> <li>3. Worn piston pin, bearing or piston pin bore.</li> <li>4. Worn piston rings or ring grooves.</li> </ol> <p><b>Noise seems to come from crankshaft</b></p> <ol style="list-style-type: none"> <li>1. Worn or burnt crankshaft bearings.</li> <li>2. Big-end bearing worn or burnt.</li> </ol> <p><b>Noise seems to come from final gear box</b></p> <ol style="list-style-type: none"> <li>1. Gears worn or rubbing</li> <li>2. Badly worn splines.</li> <li>3. Worn or damaged bearings of driveshaft or rear axle shaft.</li> </ol>	<p>Replace. Clean. Replace. Replace.</p> <p>Replace. Replace.</p> <p>Replace. Replace. Replace.</p>
<b>Slipping clutch.</b>	<ol style="list-style-type: none"> <li>1. Worn or damaged clutch shoes.</li> <li>2. Worn clutch drum.</li> </ol>	<p>Replace. Replace.</p>
<b>Engine idles poorly.</b>	<ol style="list-style-type: none"> <li>1. Excessively worn cylinder or piston rings.</li> <li>2. Stiff piston ring.</li> <li>3. Gas leaks from crankshaft oil seal.</li> <li>4. Excessive spark plug gap.</li> <li>5. Defective CDI/ignition coil.</li> <li>6. Defective stator coil.</li> <li>7. Float-chamber fuel level out of adjustment.</li> <li>8. Clogged jets in carburetor.</li> <li>9. Broken or damaged reed valve.</li> </ol>	<p>Replace. Replace. Replace. Adjust or replace. Replace. Replace. Adjust float height. Clean or adjust. Replace.</p>

For the others



 <p><b>09913-76010</b> Bearing installer</p>	 <p><b>09920-13120</b> Crankcase separating tool</p>	 <p><b>09921-20210</b> Bearing remover</p>	 <p><b>09923-73210</b> Bearing remover</p>	 <p><b>09924-74510</b> Oil seal installer handle</p>
 <p><b>09924-74545</b> Oil seal installer attachment</p>	 <p><b>09924-84521</b> Bearing installer set</p>	 <p><b>09930-30102</b> Sliding shaft</p>	 <p><b>09930-40113</b> Rotor holder</p>	 <p><b>09940-52860</b> Front fork oil seal installer</p>
 <p><b>09941-34513</b> Bearing installer</p>	 <p><b>09941-50111</b> Bearing remover</p>	 <p><b>09941-74910</b> Bearing installer</p>	 <p><b>09943-88211</b> Bearing remover/ installer</p>	 <p><b>09951-16080</b> Bearing installer</p>

# **AY50W/WW/WRW ('98-MODEL)**

## **CONTENTS**

<b>SPECIFICATIONS.....</b>	<b>9- 1</b>
<b>SERVICE DATA.....</b>	<b>9- 4</b>

**NOTE:**

*Asterisk mark (\*) indicates the New W-model specifications and service data.*

**FUEL + OIL + COOLANT**

ITEM	SPECIFICATION	NOTE
Fuel type	Gasoline used should be graded 85-95 octane or higher. An unleaded gasoline is recommended.	
Fuel tank capacity	6.8 L (1.5 Imp gal)	
Engine oil type	Use SUZUKI CCI SUPER OIL. If they are not available, use a good quality 2-stroke oil rated FC under JASO classification.	
Engine oil tank capacity	1.2 L (1.1 Imp qt)	
Final gear oil type	SAE 10W/40	
Final gear oil capacity	130 ml (4.6 Imp oz)	
Brake fluid type	DOT 4	
Engine coolant type	Use an anti-freeze/coolant compatible with aluminum radiator, mixed with distilled water only, at the ratio of 50 : 50.	AY50W AY50WR
Engine coolant including reserve	1 200 ml (1.1 Imp qt)	AY50W AY50WR

**RADIATOR + ENGINE COOLANT TEMP. SWITCH + ENGINE COOLANT**

ITEM		STANDARD/SPECIFICATION	LIMIT
Radiator reservoir cap valve opening pressure		100 kPa (1.0 kgf/cm <sup>2</sup> )	—
Engine coolant temp. switch operating temperature	ON	Approx. 117°C	—
	OFF	Approx. 110°C	—
Engine coolant type		Use an anti-freeze/coolant compatible with aluminum radiator, mixed with distilled water only, at the ratio of 50 : 50.	—
Engine coolant including reserve		1 200 ml	—

**TRANSMISSION**

Unit: mm Except ratio

ITEM	STANDARD		LIMIT
Reduction ratio	P-02,18,22,39	*Variable 2.975—0.781	—
	P-04,26,34,53	*Variable 2.975—1.140	—
Final reduction ratio	P-02,18,22,39	*16.271 (51/15 × 67/14)	—
	P-04,26,34,53	*13.812 (51/15 × 65/16)	—
Drive belt width	*18.4		*17.4
Driven face spring free length	110		104.5

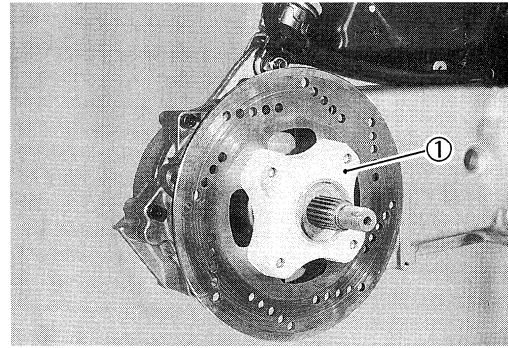
**CARBURETOR**

ITEM	SPECIFICATION		
	P-34 (X-Model)	P-34 (Y-Model)	P-18,39
Carburetor type	KEIHIN PWS12	←	←
Bore size	12 mm	←	←
I.D. No.	*35ED	*35EH	35EB
Idle r/min.	*1 900 ± 200 r/min.	←	1 700 ± 200 r/min.
Float height	5.1 ± 0.5 mm	←	←
Main jet (M.J.)	*#82	*#65	#55
Jet needle (J.N.)	*6LQJ-3rd	*6LQJ-5th	N5GJ-3rd
Pilot jet (P.J.)	*#45	←	#35
Air screw (A.S.)	*1 1/8 turns back	*2 turns back	3/8 turn back
Throttle cable play	2–4 mm	←	←

ITEM	SPECIFICATION		
	P-04, 26, 53	P-02	P-22
Carburetor type	KEIHIN PWS14	←	←
Bore size	14 mm	←	←
I.D. No.	*35EC	35E9	35E4
Idle r/min.	*1 900 ± 200 r/min.	1 700 ± 200 r/min.	←
Float height	5.1 ± 0.5 mm	←	←
Main jet (M.J.)	*#68	#60	#55
Jet needle (J.N.)	*N4WA-4th	N4WA-3rd	N4VJ-3rd
Pilot jet (P.J.)	#48	#45	#42
Air screw (A.S.)	*1 3/4 turns back	1 3/8 turns back	1 1/4 turns back
Throttle cable play	2–4 mm	←	←

## BRAKE DISC REMOVAL

- Remove the rear wheel. (See p. 10-13.)
- Remove the rear brake caliper. (See p. 10-15.)
- Remove the brake disc with disc mounting housing ①.

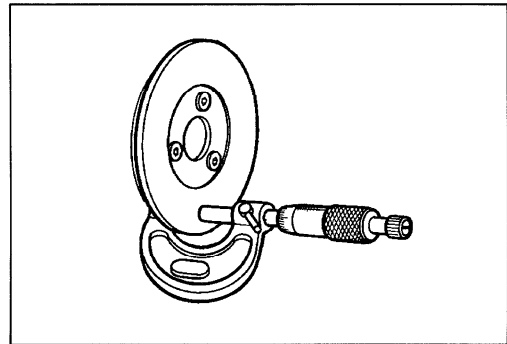


## BRAKE DISC INSPECTION AND REPLACEMENT

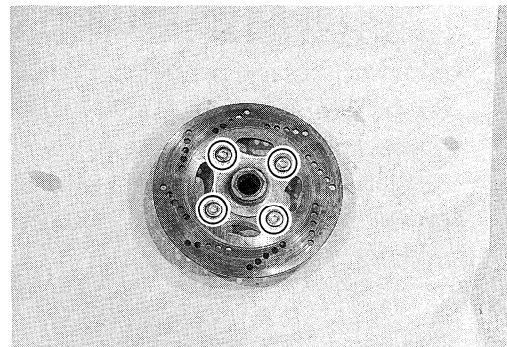
With the brake disc mounted on the housing, measure the disc thickness with a micrometer.

**DATA** Brake disc thickness  
Service Limit: 3.5 mm

**TOOL** 09900-20205: Micrometer (0–25 mm)



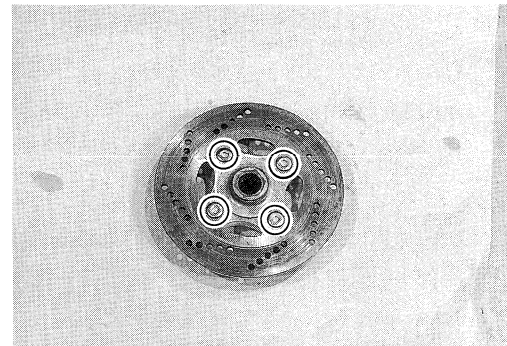
- Remove the brake disc.



- Make sure that the brake disc is clean and free of any grease. Apply THREAD LOCK “1360” to the disc mounting bolts and tighten them to the specified torque.

**1360** 99000-32130: THREAD LOCK SUPER “1360”

**U** Brake disc bolt: 23 N·m (2.3 kgf-m)



## REAR BRAKE MASTER CYLINDER

Refer to pages 6-13 to 6-15.

**AY50WRK1****CYLINDER + PISTON + PISTON RING**

Unit: mm

ITEM	STANDARD		LIMIT	
Piston to cylinder clearance	0.035 – 0.045		0.120	
Cylinder bore	41.010 – 41.025 Measure at 20 mm from the top surface		41.105	
Piston diam.	40.970 – 40.985 Measure at 23 mm from the skirt end		40.890	
Cylinder distortion	————		0.05	
Cylinder head distortion	————		0.05	
Piston ring free end gap	1st & 2nd	T	Approx. 4.5	3.6
		N	Approx. 3.0	2.4
Piston ring end gap	1st & 2nd	T&N	0.08 – 0.18	0.80
Piston ring to groove clearance	1st & 2nd		0.01 – 0.05	————
Piston pin bore	12.002 – 12.010		12.030	
Piston pin O.D.	11.996 – 12.000		11.980	

**CONROD + CRANKSHAFT**

Unit: mm

ITEM	STANDARD	LIMIT
Conrod small end I.D.	16.003 – 16.011	16.040
Conrod deflection	————	3.0
Crank web to web width	38.0 ± 0.05	————
Crankshaft runout	————	0.05

**OIL PUMP**

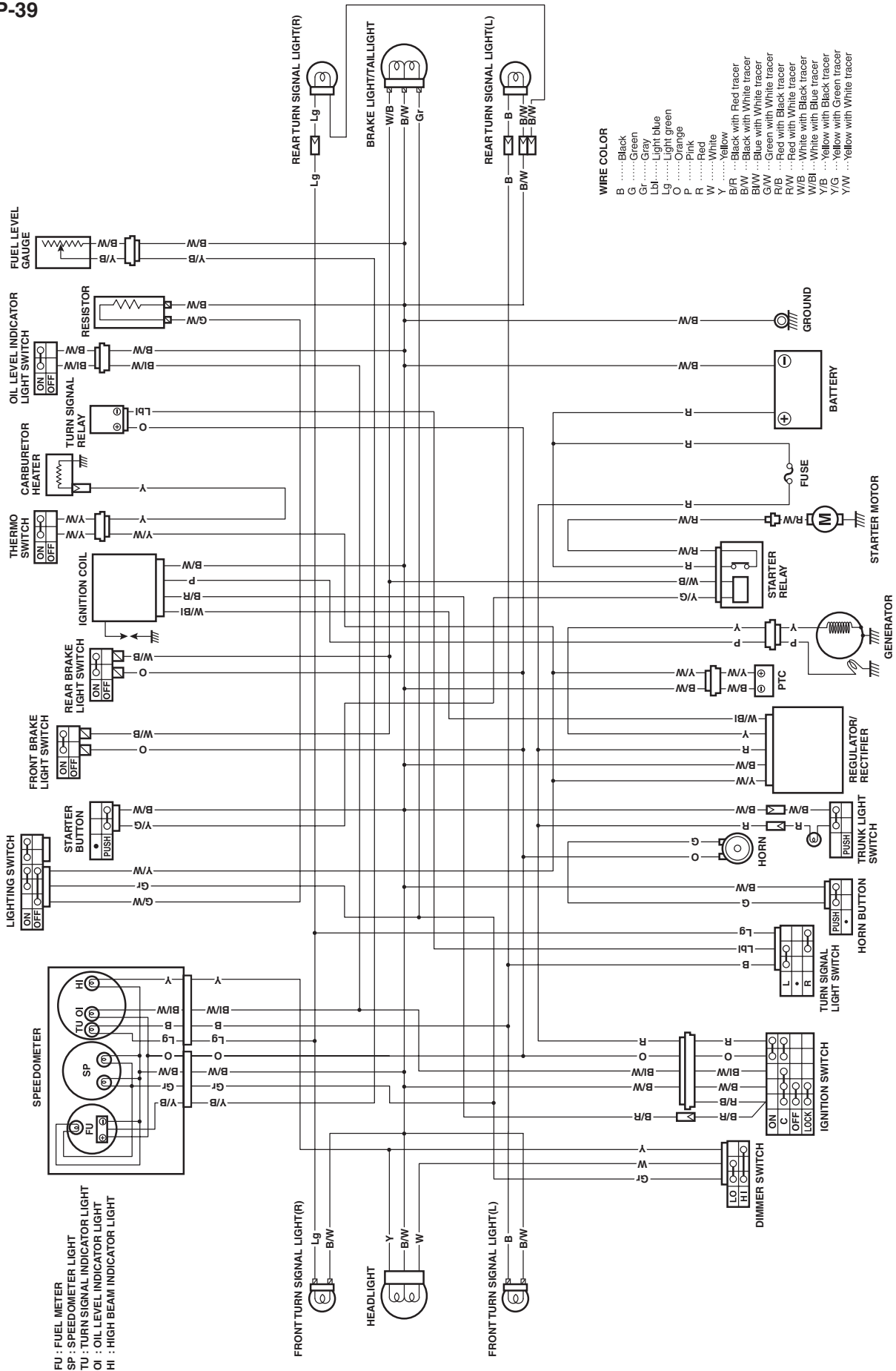
ITEM	SPECIFICATION
Oil pump reduction ratio	30.000 (30/1)
Oil pump discharge rate	0.8 – 1.0 ml for 5 minutes at 3 000 r/min.

**CLUTCH**

Unit: mm

ITEM	STANDARD	LIMIT	
Clutch wheel I.D.	110.00 – 110.15	110.50	
Clutch shoe thickness	3.0	2.0	
Clutch engagement	P-02, 18, 22	4 000 ± 200 r/min.	————
	P-04, 26, 34, 53	4 400 ± 200 r/min	————
Clutch lock-up	P-02, 18, 22	5 600 ± 300 r/min.	————
	P-04, 26, 34, 53	6 000 ± 300 r/min.	————

For P-39



## SERVICE DATA

### AY50 AND AY50S

#### CYLINDER + PISTON + PISTON RING

Unit: mm

ITEM	STANDARD			LIMIT
Piston to cylinder clearance	0.06 – 0.07			0.120
Cylinder bore	41.005 – 41.020 Measure at 20 mm from the top surface			41.075
Piston diam.	40.940 – 40.955 Measure at 15 mm from the skirt end			40.885
Cylinder distortion	—			0.05
Cylinder head distortion	—			0.05
Piston ring free end gap	1st	R	Approx. 4.0	3.2
	2nd	R	Approx. 4.3	3.4
Piston ring end gap	1st & 2nd	R	0.10 – 0.25	0.80
Piston ring to groove clearance	1st		0.03 – 0.07	—
	2nd		0.02 – 0.06	—
Piston pin bore	10.002 – 10.010			10.030
Piston pin O.D.	9.995 – 10.000			9.980

#### CONROD + CRANKSHAFT

Unit: mm

ITEM	STANDARD			LIMIT
Conrod small end I.D.	14.003 – 14.011			14.040
Conrod deflection	—			3.0
Crank web to web width	36.0 ± 0.05			—
Crankshaft runout	—			0.05

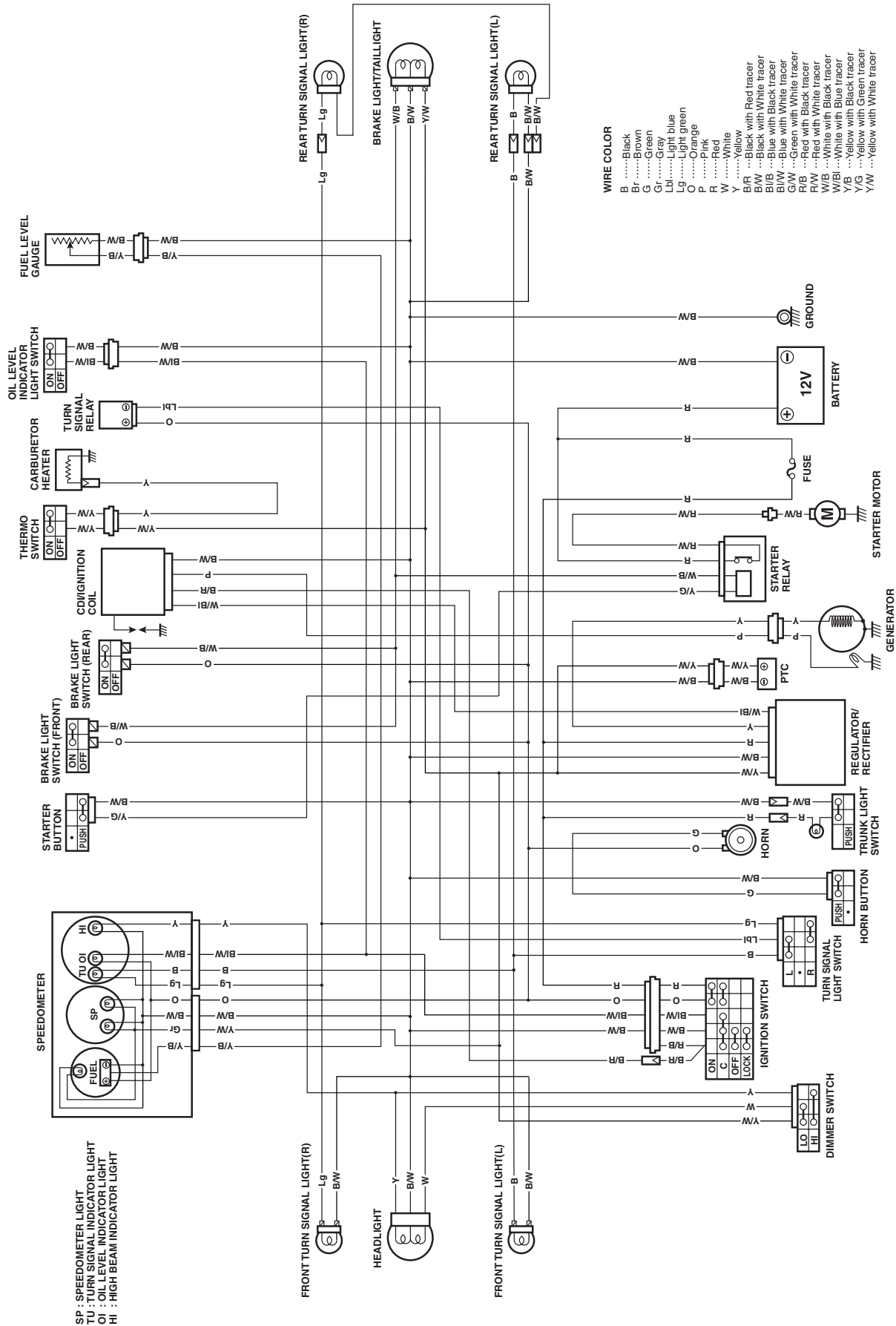
#### OIL PUMP

ITEM	SPECIFICATION
Oil pump reduction ratio	30.000 (30/1)
Oil pump discharge rate	0.9 – 1.1 ml for 5 minutes at 3 000 r/min.

#### CLUTCH

Unit: mm

ITEM	STANDARD	LIMIT
Clutch wheel I.D.	110.00 – 110.15	110.50
Clutch shoe thickness	3.0	2.0
Clutch engagement	3 300 ± 200 r/min.	—
Clutch lock-up	4 500 ± 300 r/min.	—



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