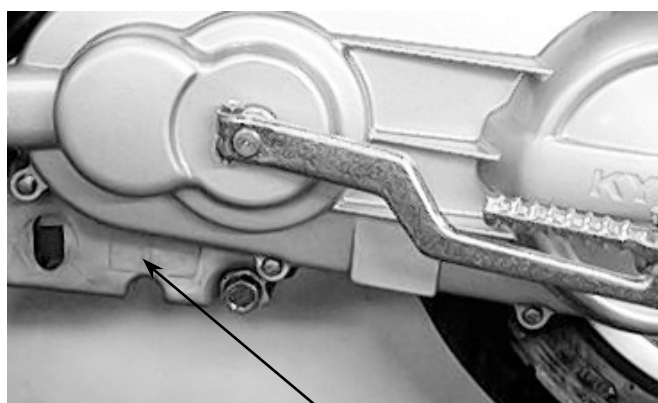


# 1. GENERAL INFORMATION

**1**

ENGINE SERIAL NUMBER ---- 1-0	TOOLS----- 1-11
SPECIFICATION ----- 1-1	LUBRICATION POINTS ----- 1-12
SERVICE PRECAUTIONS ----- 1-2	WIRING DIAGRAM----- 1-14
TORQUE VALUES----- 1-9	CABLE & HARNESS ROUTING- 1-19
	TROUBLESHOOTING----- 1-20

## ENGINE SERIAL NUMBER



Location of Engine Serial Number

# 1. GENERAL INFORMATION

## SPECIFICATIONS

Name & Model No.			SH40AA			
Motorcycle Name & Type			Dink Classic 200			
Overall length			1907mm			
Overall width			750mm			
Overall height			1170mm			
Wheel base			1390mm			
Engine type			Water cooled 4-stroke, OHC engine			
Displacement			176cc			
Fuel Used			92# unleaded gasoline			
Net weight (kg)		Front wheel	53			
		Rear wheel	77			
		Total	130			
Gross weight(kg)		Front wheel	58			
		Rear wheel	85			
		Total	143			
Tires		Front wheel	120/70-12			
		Rear wheel	130/70-12			
Ground clearance			155mm			
Perform- ance	Braking distance (m)		7.9m(40km/hr)			
	Min. turning radius		2350mm			
Engine	Starting system		Starting motor & Kick starter			
	Type		Gasoline, 4-stroke			
	Cylinder arrangement		Single cylinder			
	Combustion chamber type		Semi-sphere			
	Valve arrangement		O.H.C.& Center Pivot			
	Bore x stroke (mm)		62 x 58.2			
	Compression ratio		10.9:1			
	Compression pressure (kg/cm <sup>2</sup> -rpm)		15			
	Max. output (ps/rpm)		15.2/7250			
	Max. torque (kg-m/rpm)		1.4/6500			
	Port timing	Intake (1mm)	Open	BTDC 12°		
			Close	ATDC 35°		
		Exhaust (1mm)	Open	BDDC 28°		
			Close	0°		
	Valve clearance (cold)		Intake	0.1		
			Exhaust	0.1		
	Idle speed (rpm)			1700rpm		
	Lubrication System	Lubrication type		Forced pressure & wet sump		
		Oil pump type		Inner/outer rotor type		
		Oil filter type		Full-flow filtration		
		Oil capacity		1.1 liters		

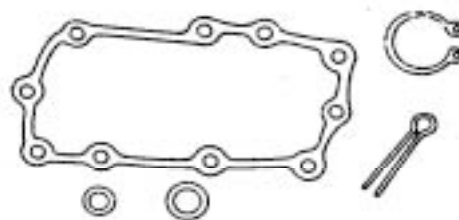
		Cooling Type	Water cooling

Fuel System	Air cleaner type & No			Paper element, wet	
	Fuel capacity			10 liters	
	Carburetor	Type		VE	
		Piston dia.		26	
		Venturi dia.		22equivalent	
Throttle type		Butterfly type			
Electrical	Ignition System	Type		CDI	
		Ignition timing		Repeatedly	
		Contact breaker		Non-contact point type	
		Spark plug		NGK DPR7EA-9	
		Spark plug gap		0.7mm	
	Battery	Capacity		12V8AH	
Power Drive System	Clutch	Type		CVT	
	Transmission Gear	Type		Non-stage transmission	
		Operation		Automatic centrifugal type	
	Reduction Gear	Type		Two-stage reduction	
		Reduction ratio	1st	2.8-1.0	
2nd			$(46/16) \times (46/15) = 8.82$		
Moving Device	Front Axle	Caster angle			
		Connecting rod			
	Tire pressure (kg/cm <sup>2</sup> )		Front	1.75	
			Rear	2.0~2.25	
	Turning angle	Left	42.5°		
Right		42.5°			
Brake system type			Front	Disk brake	
			Rear	Disk brake	
Damping Device	Suspension type		Front	Telescope	
			Rear	Double swing	
	Shock absorber type		Front	Telescope	
			Rear	Double swing	
Frame type				Under bone	

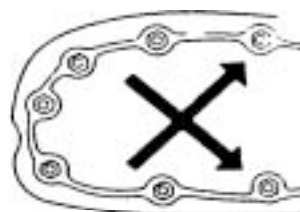
# 1. GENERAL INFORMATION

## SERVICE PRECAUTIONS

- Make sure to install new gaskets, O-rings, circlips, cotter pins, etc. when reassembling.



- When tightening bolts or nuts, begin with larger-diameter to smaller ones at several times, and tighten to the specified torque diagonally.



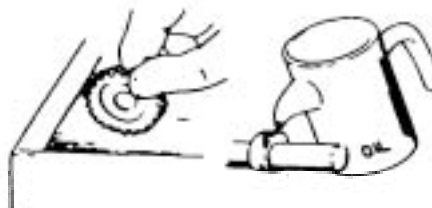
- Use genuine parts and lubricants.



- When servicing the motorcycle, be sure to use special tools for removal and installation.



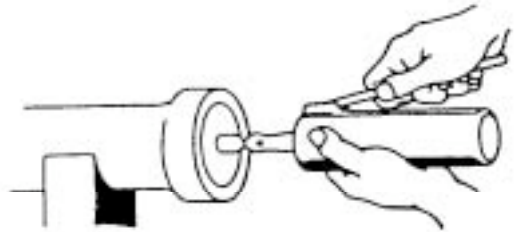
- After disassembly, clean removed parts. Lubricate sliding surfaces with engine oil before reassembly.



## 1. GENERAL INFORMATION

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- Apply or add designated greases and lubricants to the specified lubrication points.



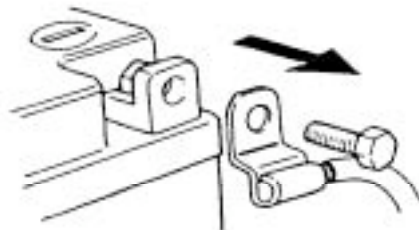
- After reassembly, check all parts for proper tightening and operation.



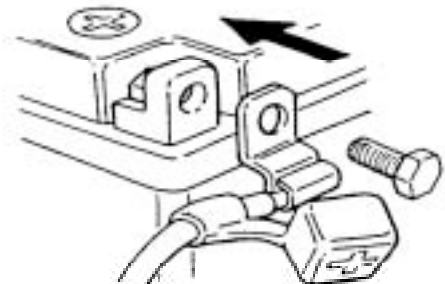
- When two persons work together, pay attention to the mutual working safety.



- Disconnect the battery negative (-) terminal before operation.
- When using a spanner or other tools, make sure not to damage the motorcycle surface.

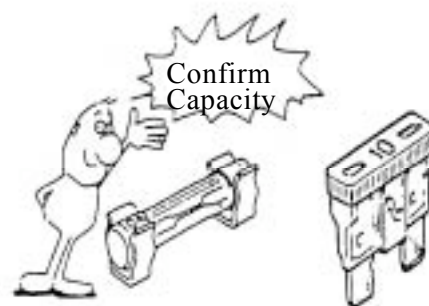


- After operation, check all connecting points, fasteners, and lines for proper connection and installation.
- When connecting the battery, the positive (+) terminal must be connected first.
- After connection, apply grease to the battery terminals.
- Terminal caps shall be installed securely.



# 1. GENERAL INFORMATION

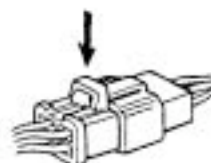
- If the fuse is burned out, find the cause and repair it. Replace it with a new one according to the specified capacity.



- After operation, terminal caps shall be installed securely.



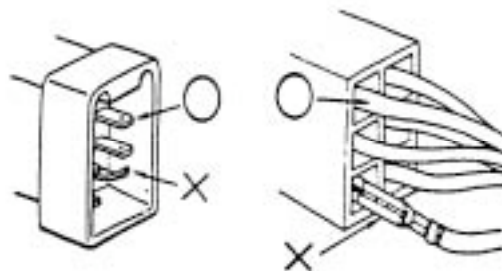
- When taking out the connector, the lock on the connector shall be released before operation.



- Hold the connector body when connecting or disconnecting it.
- Do not pull the connector wire.

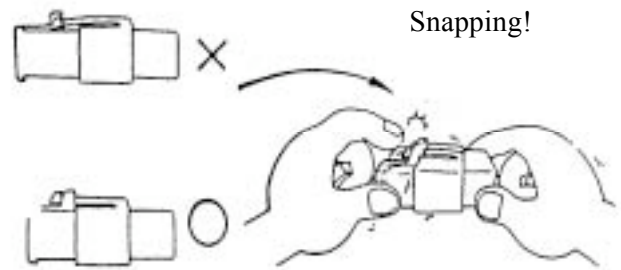


- Check if any connector terminal is bending, protruding or loose.

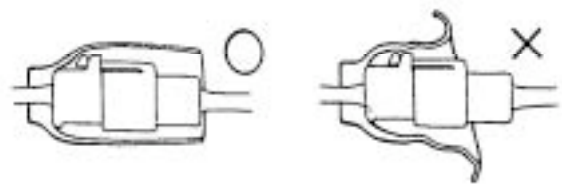


## 1. GENERAL INFORMATION

- The connector shall be inserted completely.
- If the double connector has a lock, lock it at the correct position.
- Check if there is any loose wire.



- Before connecting a terminal, check for damaged terminal cover or loose negative terminal.



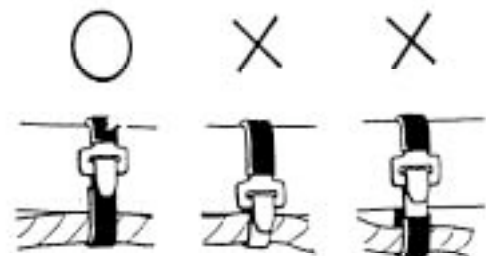
- Check the double connector cover for proper coverage and installation.



- Insert the terminal completely.
- Check the terminal cover for proper coverage.
- Do not make the terminal cover opening face up.

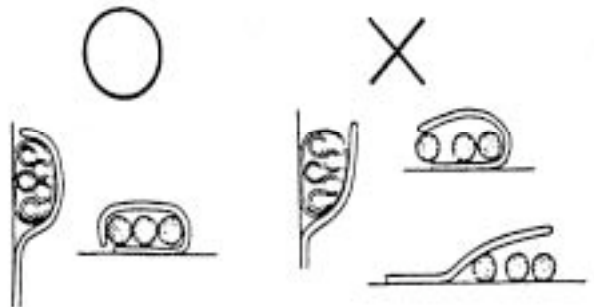


- Secure wire harnesses to the frame with their respective wire bands at the designated locations. Tighten the bands so that only the insulated surfaces contact the wire harnesses.



# 1. GENERAL INFORMATION

- After clamping, check each wire to make sure it is secure.

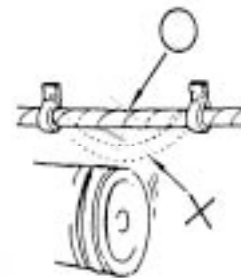


- Do not squeeze wires against the weld or its clamp.

- After clamping, check each harness to make sure that it is not interfering with any moving or sliding parts.

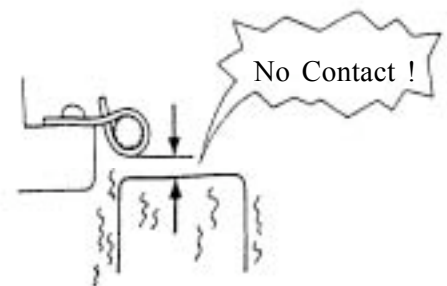


- When fixing the wire harnesses, do not make it contact the parts which will generate high heat.



- Route wire harnesses to avoid sharp edges or corners. Avoid the projected ends of bolts and screws.

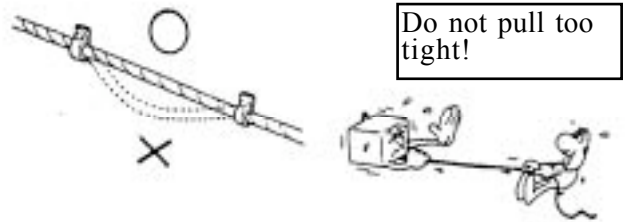
- Route wire harnesses passing through the side of bolts and screws. Avoid the projected ends of bolts and screws.



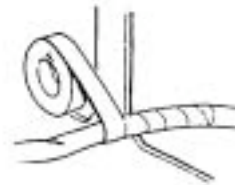


## 1. GENERAL INFORMATION

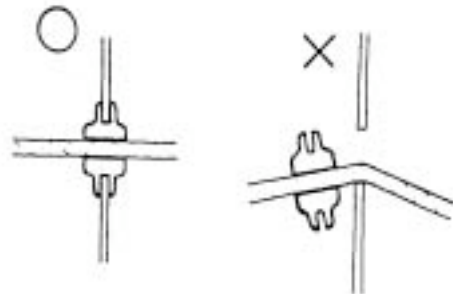
- Route harnesses so they are neither pulled tight nor have excessive slack.



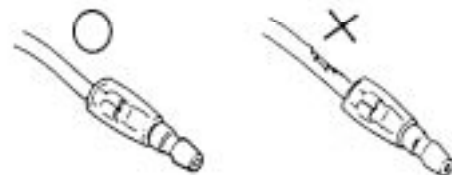
- Protect wires and harnesses with electrical tape or tube if they contact a sharp edge or corner.



- When rubber protecting cover is used to protect the wire harnesses, it shall be installed securely.



- Do not break the sheath of wire.
- If a wire or harness is with a broken sheath, repair by wrapping it with protective tape or replace it.



- When installing other parts, do not press or squeeze the wires.

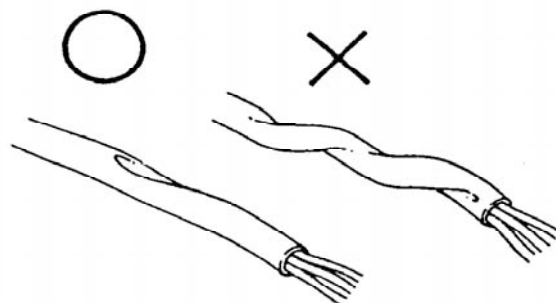
Do not press or squeeze the wire.



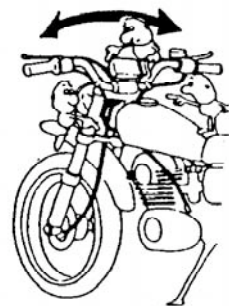


# 1. GENERAL INFORMATION

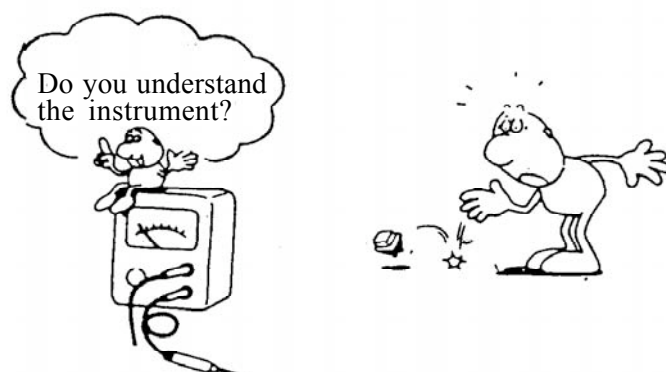
- After routing, check that the wire harnesses are not twisted or kinked.



- Wire harnesses routed along with handlebar should not be pulled tight, have excessive slack or interfere with adjacent or surrounding parts in all steering positions.



- When a testing device is used, make sure to understand the operating methods thoroughly and operate according to the operating instructions.

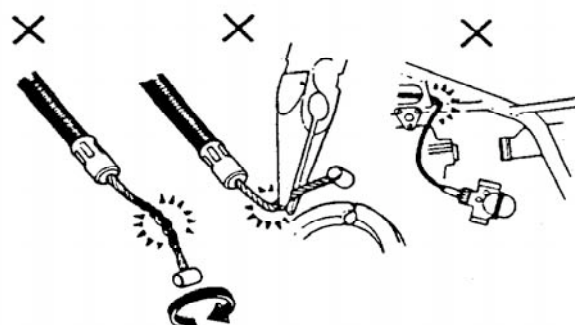


- Be careful not to drop any parts.

- When rust is found on a terminal, remove the rust with sand paper or equivalent before connecting.



- Do not bend or twist control cables. Damaged control cables will not operate smoothly and may stick or bind.



# 1. GENERAL INFORMATION

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## ■ Symbols:

The following symbols represent the servicing methods and cautions included in this service manual.



: Apply engine oil to the specified points. (Use designated engine oil for lubrication.)



: Apply grease for lubrication.



: Transmission Gear Oil (90#)



: Use special tool.



: Caution



: Warning

# 1. GENERAL INFORMATION

## TORQUE VALUES

### STANDARD TORQUE VALUES

Item	Torque (kg-m)	Item	Torque (kg-m)
5mm bolt, nut	0.5	5mm screw	0.4
6mm bolt, nut	1.0	6mm screw, SH bolt	0.9
8mm bolt, nut	2.2	6mm flange bolt, nut	1.2
10mm bolt, nut	3.5	8mm flange bolt, nut	2.7
12mm bolt, nut	5.5	10mm flange bolt, nut	4.0

Torque specifications listed below are for important fasteners.

### ENGINE

Item	Q'ty	Thread dia.(mm)	Torque (kg-m)	Remarks
Cylinder head bolt A	2	8	2.2	Double end bolt Double end bolt Apply oil to threads
Cylinder head bolt B	2	8	2.2	
Oil filter screen cap	1	30	1.5	
Exhaust muffler joint lock nut	2	8	0.9	
Cylinder head cap nut	4	8	2.2	
Valve adjusting lock nut	2	5	0.9	
Cam chain tensioner slipper bolt	1	6	0.9	
Oil bolt	1	12	1.3	
Clutch outer nut	1	12	5.5	
Clutch drive plate nut	1	12	5.5	
Flywheel nut	1	14	5.5	Left hand threads
Oil pump bolt	2	5	0.4	
Cylinder head cover bolt	4	6	1.2	
Spark plug	1	10	1.2	
Cam chain tensioner bolt	1	6	0.9	
Water pump impeller	1	8	1.4	

### FRAME

Item	Q'ty	Thread dia.(mm)	Torque (kg-m)	Remarks
Steering stem lock nut	1	10	4.5	U-nut
Front axle nut	1	12	6.0	U-nut
Rear axle nut	1	14	9.0	U-nut
Rear shock absorber upper bolt	2	10	3.0	
Rear shock absorber lower bolt	2	8	3.0	
Front shock absorber lock bolt	4	10	2.5	
Engine hanger bolt	1	12	5.5	

# 1. GENERAL INFORMATION

## SPECIAL TOOLS

Tool Name	Tool No.	Remarks	Ref. Page
Valve guide driver		Valve guide removal/installation	
Valve guide reamer		Valve guide grinding	
Valve spring compressor		Valve removal	
Lock nut wrench, 39mm		Clutch disassembly	
Bearing driver		Bearing removal	
Bearing remover, 12mm		Bearing removal	
Remover shaft		Bearing removal	
Remover weight		Bearing removal	
Bearing remover, 15mm		Bearing removal	
Bearing driver		Bearing removal	
Clutch spring compressor		Clutch disassembly	
Ball race remover extension		Ball race removal	
Ball race remover		Ball race removal	
Spring compressor		Spring removal	
Mechanical seal driver		Water pump mechanical seal removal/installation	
Kick starter spring remover		Kick starter spring removal	
Gear remover		Starter gear removal	
Valve adjuster		Tapper adjustment	
Float level gauge		Carburetor fuel level check	
Valve seat cutter 45°		Valve seat refacing	
Valve seat cutter 32°		Valve seat refacing	
Valve seat cutter 60°		Valve seat refacing	
Cutter clip, 5mm			
Universal holder		Holding clutch for removal	
Bearing driver (32x35mm)		Bearing installation	
Pilot, 12mm		Bearing installation	
Pilot, 15mm		Bearing installation	
Pilot, 17mm		Bearing installation	
Flywheel puller		A.C. generator flywheel removal	
Rear shock absorber compressor		Rear shock absorber disassembly	
Steering head bearing remover		Steering head bearing removal	
Kick starter spring remover		Kick starter spring installation	
Flywheel holder		A.C. generator flywheel holding	
Reamer clip			
Fuel unit wrench		Fuel unit removal	

# 1. GENERAL INFORMATION

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## LUBRICATION POINTS

### ENGINE

Lubrication Points	Lubricant
Valve guide/valve stem movable part Camshaft protruding surface Valve rocker arm friction surface Camshaft drive chain Cylinder lock bolt and nut Piston surroundings and piston ring grooves Piston pin surroundings Cylinder inside wall Connecting rod/piston pin hole Connecting rod big end Crankshaft Crankshaft one-way clutch movable part Oil pump drive chain Starter reduction gear engaging part Countershaft gear engaging part Final gear engaging part Bearing movable part O-ring face Oil seal lip	<ul style="list-style-type: none"> <li>•Genuine KYMCO Engine Oil (SAE15W-40)</li> <li>•API SE, SF or SG Engine Oil</li> </ul>
Starter idle gear Friction spring movable part/shaft movable part Shaft movable grooved part Starter spindle movable part	High-temperature resistant grease
Starter one-way clutch threads	Thread locking agent
A.C. generator connector Transmission case breather tube	Adhesive

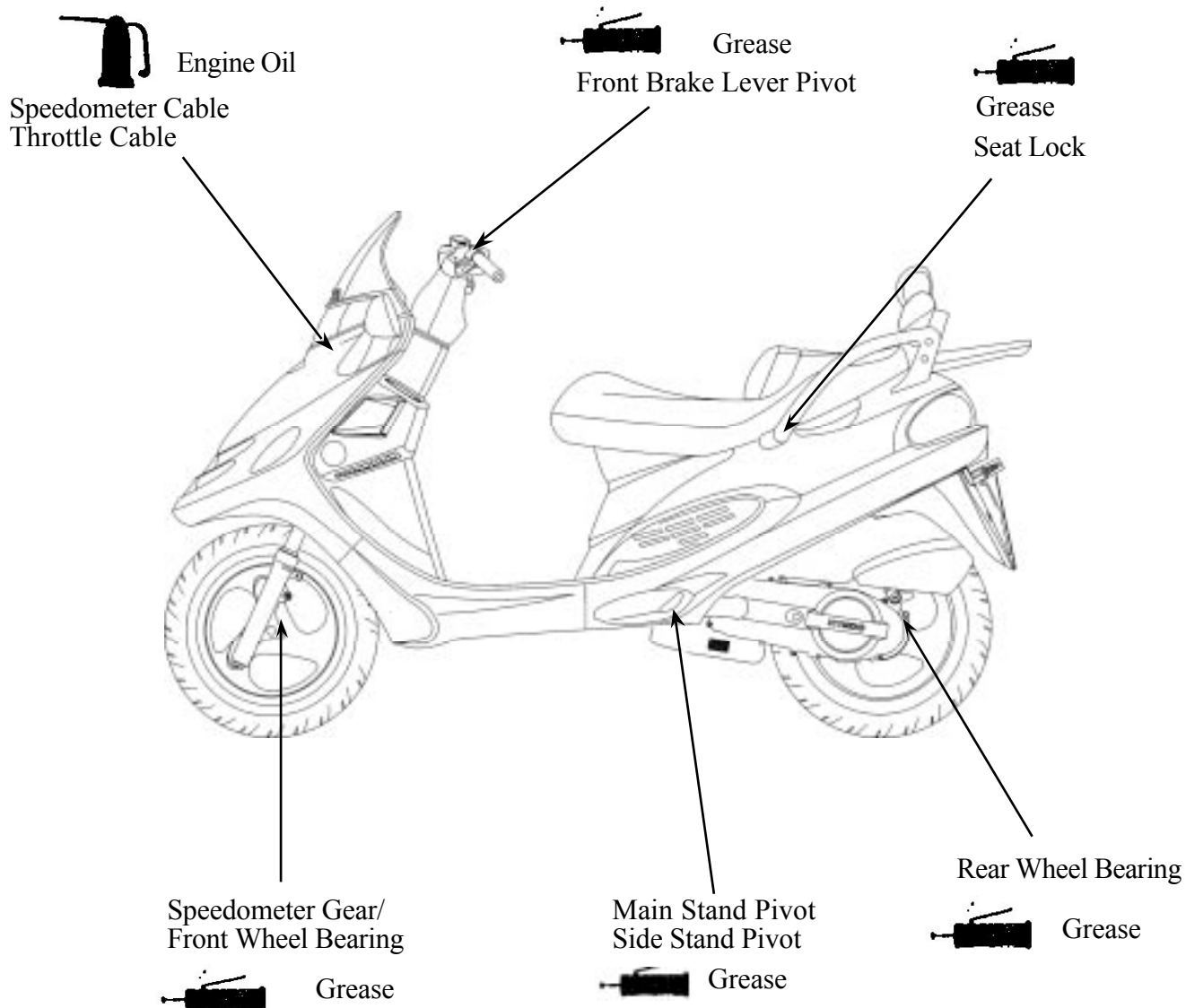
# 1. GENERAL INFORMATION

## FRAME

The following is the lubrication points for the frame.

Use general purpose grease for parts not listed.

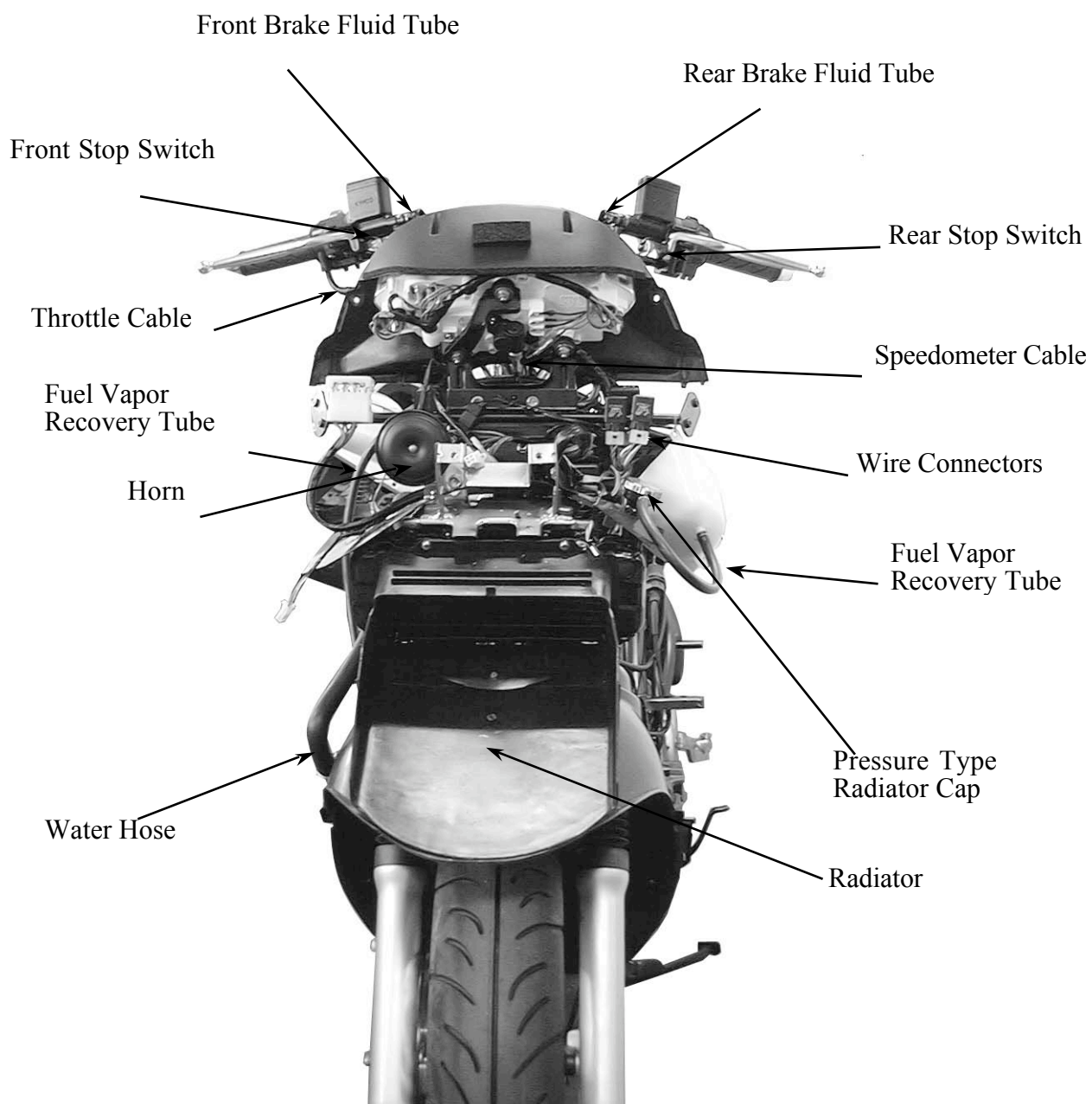
Apply clean engine oil or grease to cables and movable parts not specified. This will avoid abnormal noise and rise the durability of the motorcycle.



# 1. GENERAL INFORMATION

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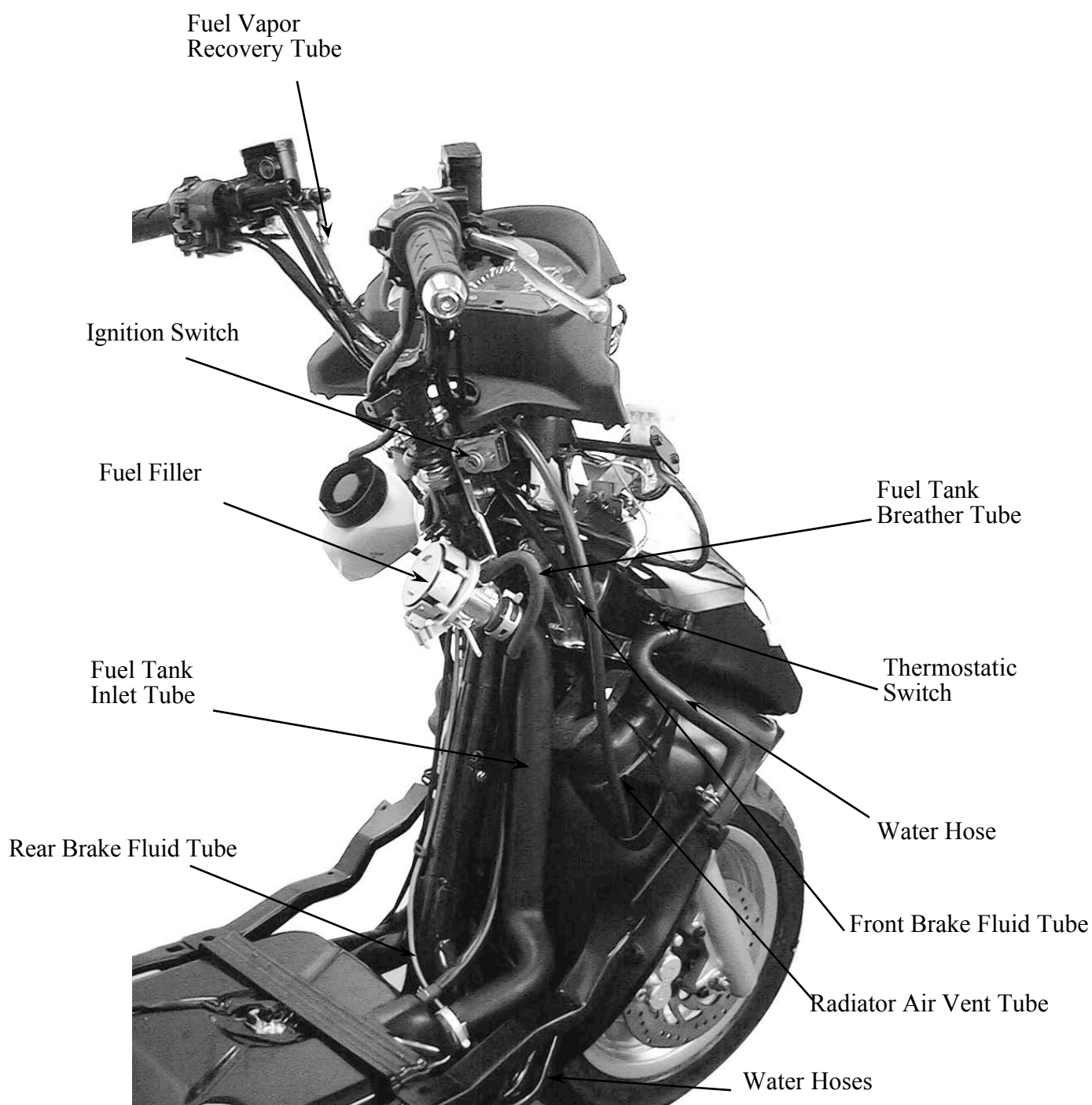
## CABLE & HARNESS ROUTING





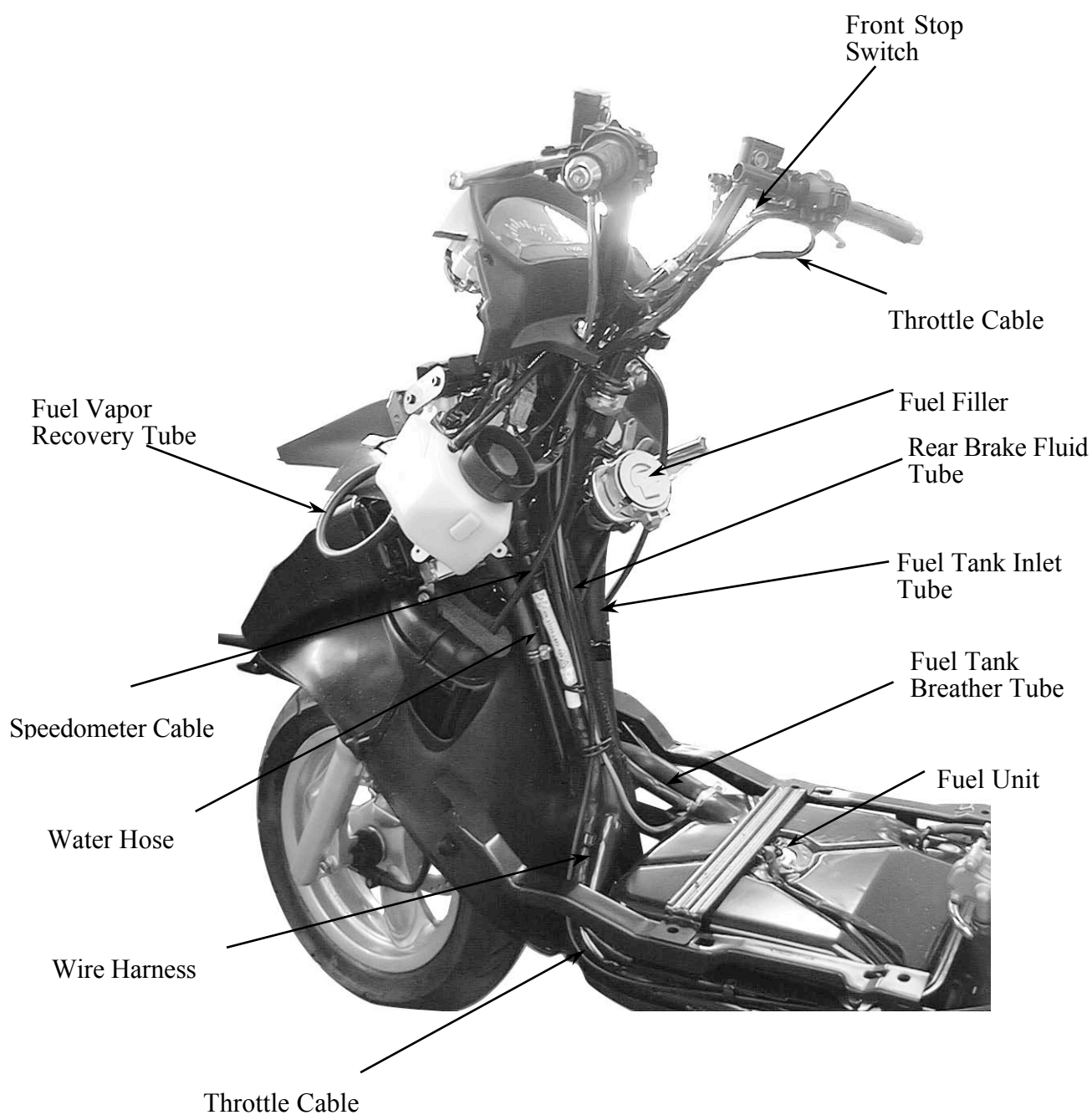
## 1. GENERAL INFORMATION

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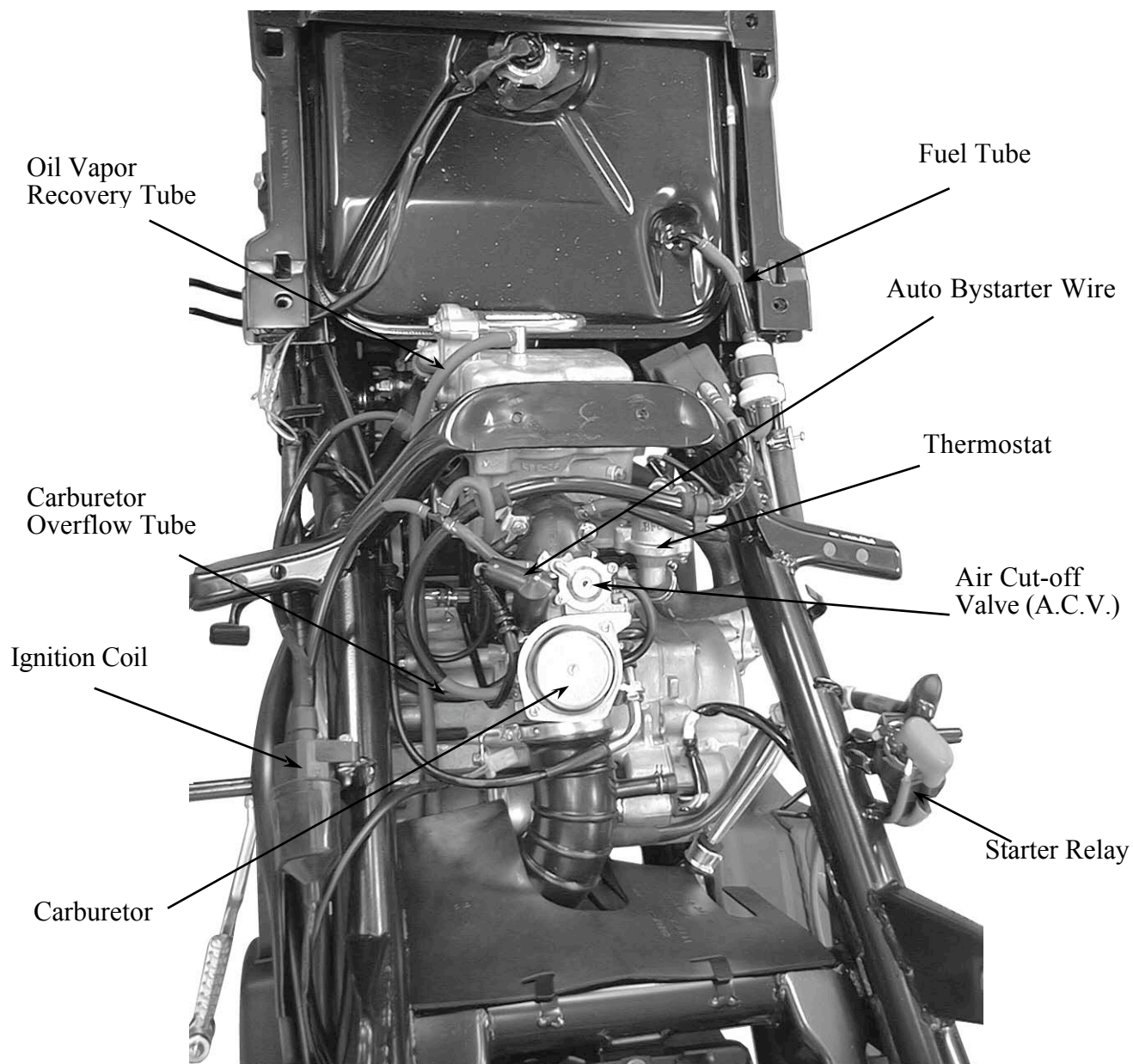
## 1. GENERAL INFORMATION

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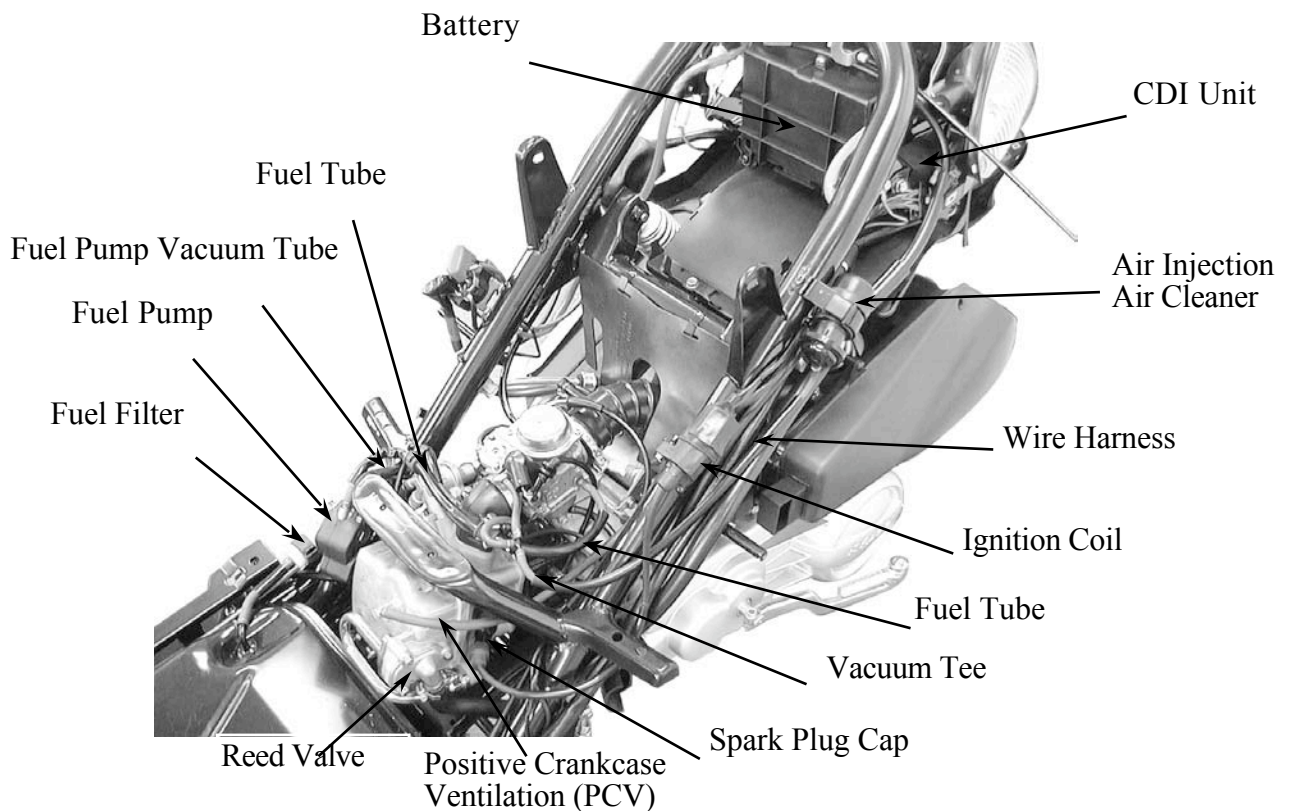
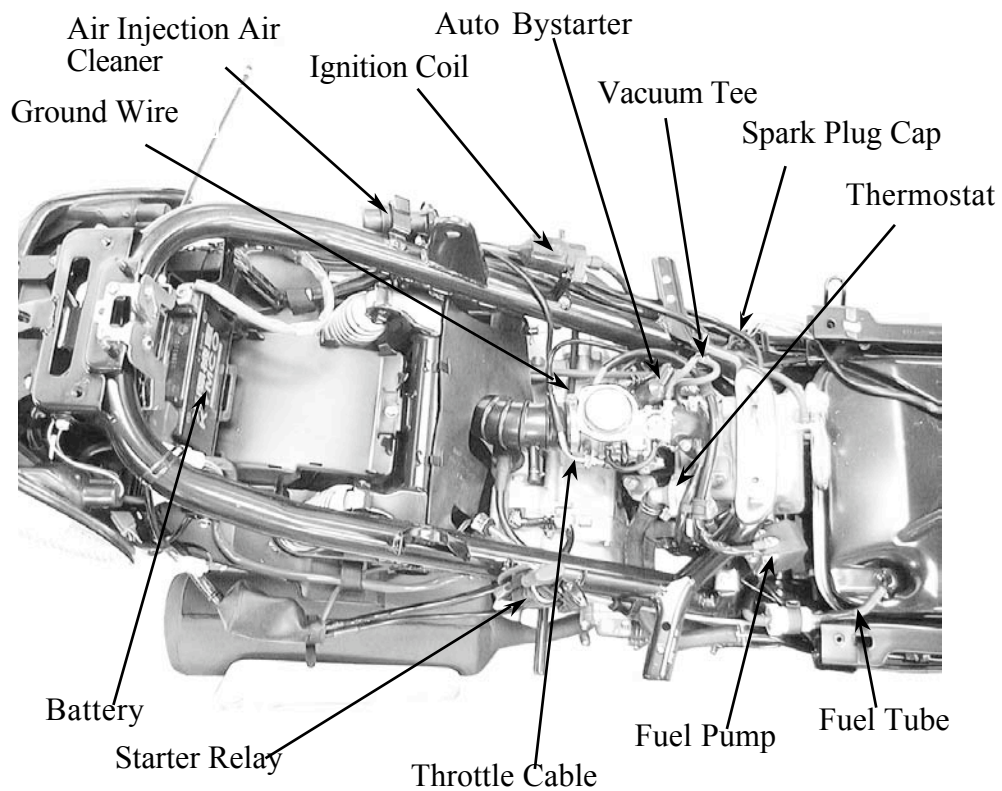
## **1. GENERAL INFORMATION**

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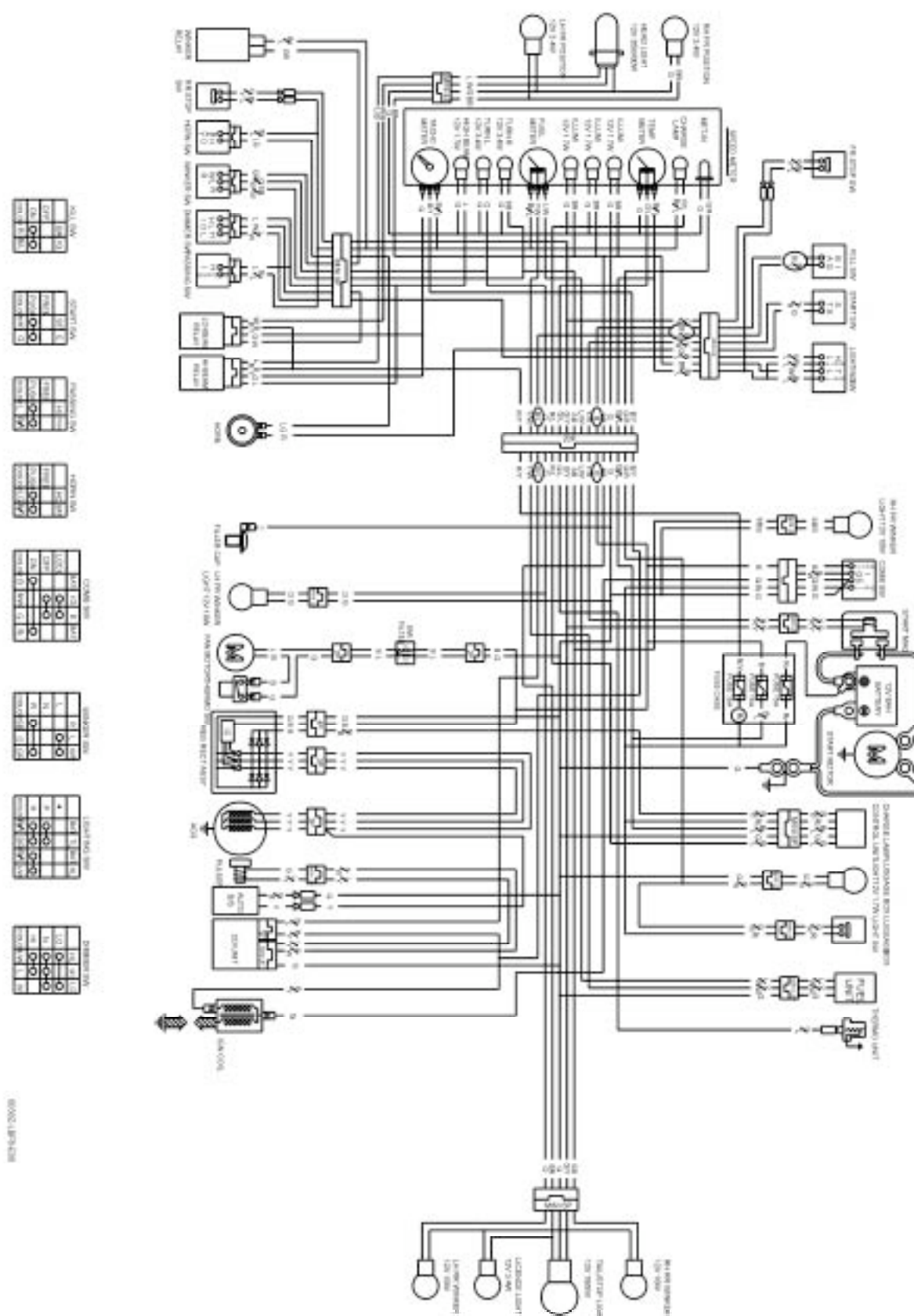


# 1. GENERAL INFORMATION



## 1. GENERAL INFORMATION

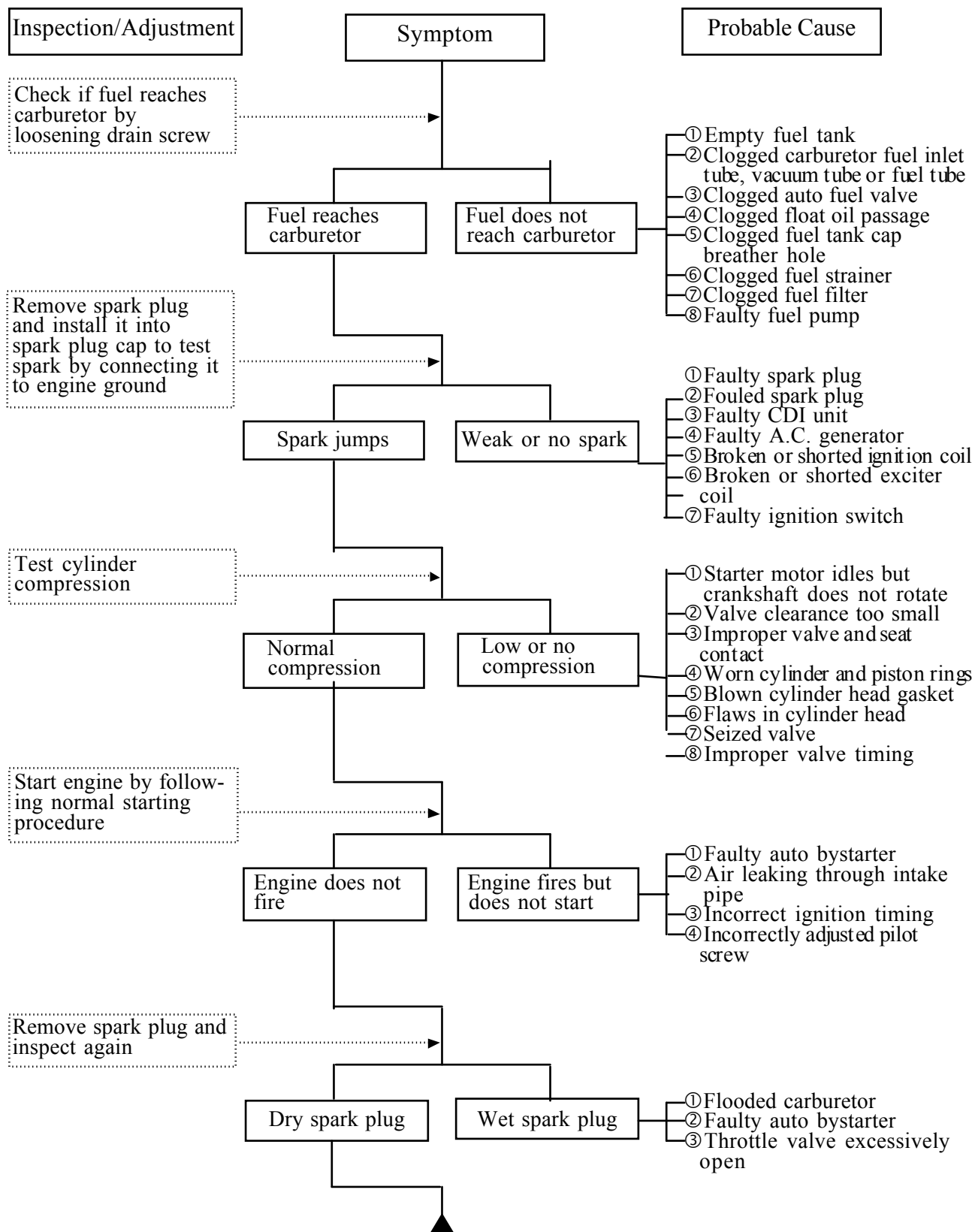
## WIRING DIAGRAM



# 1. GENERAL INFORMATION

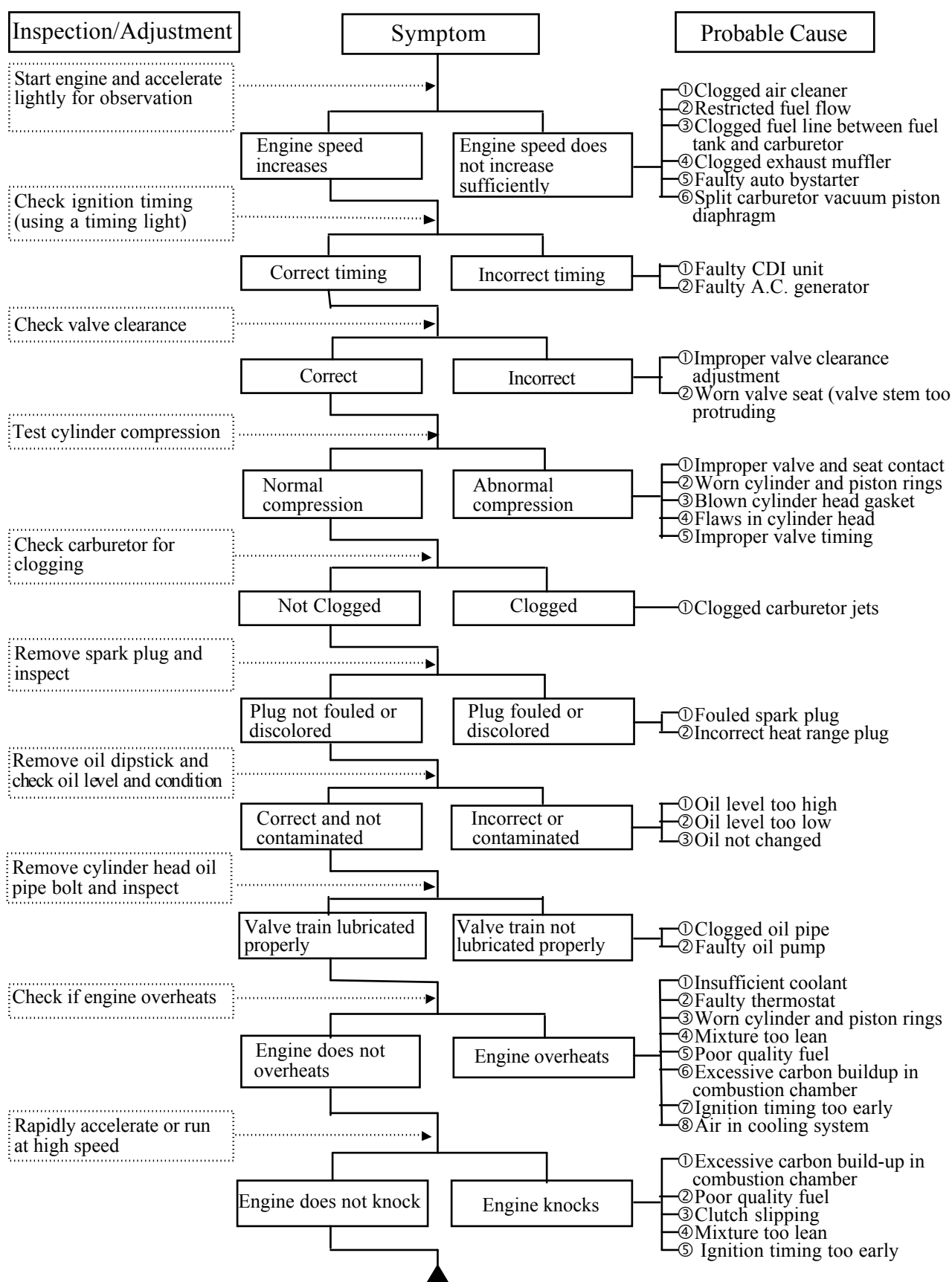
## TROUBLESHOOTING

### ENGINE WILL NOT START OR IS HARD TO START



# 1. GENERAL INFORMATION

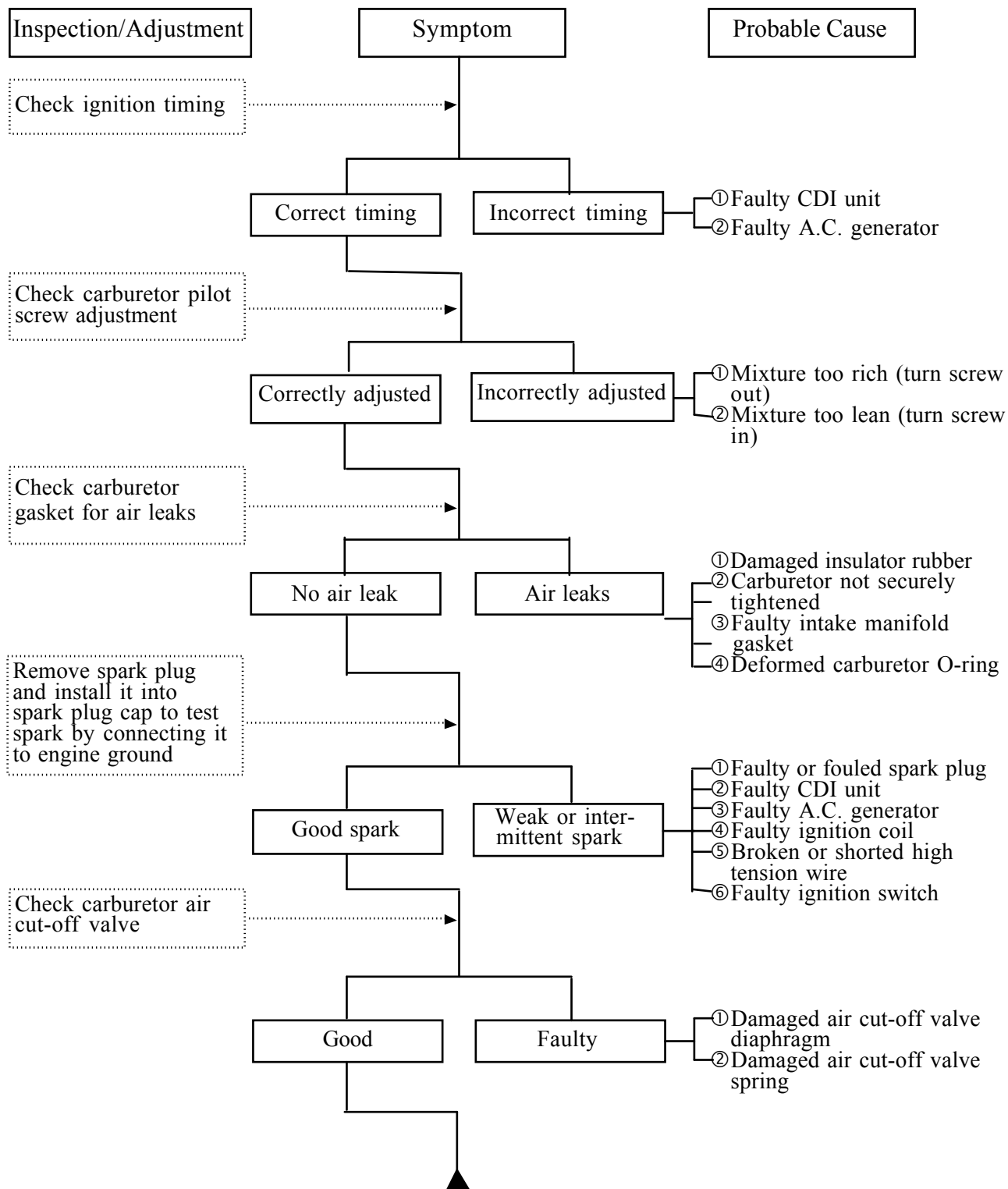
## ENGINE LACKS POWER





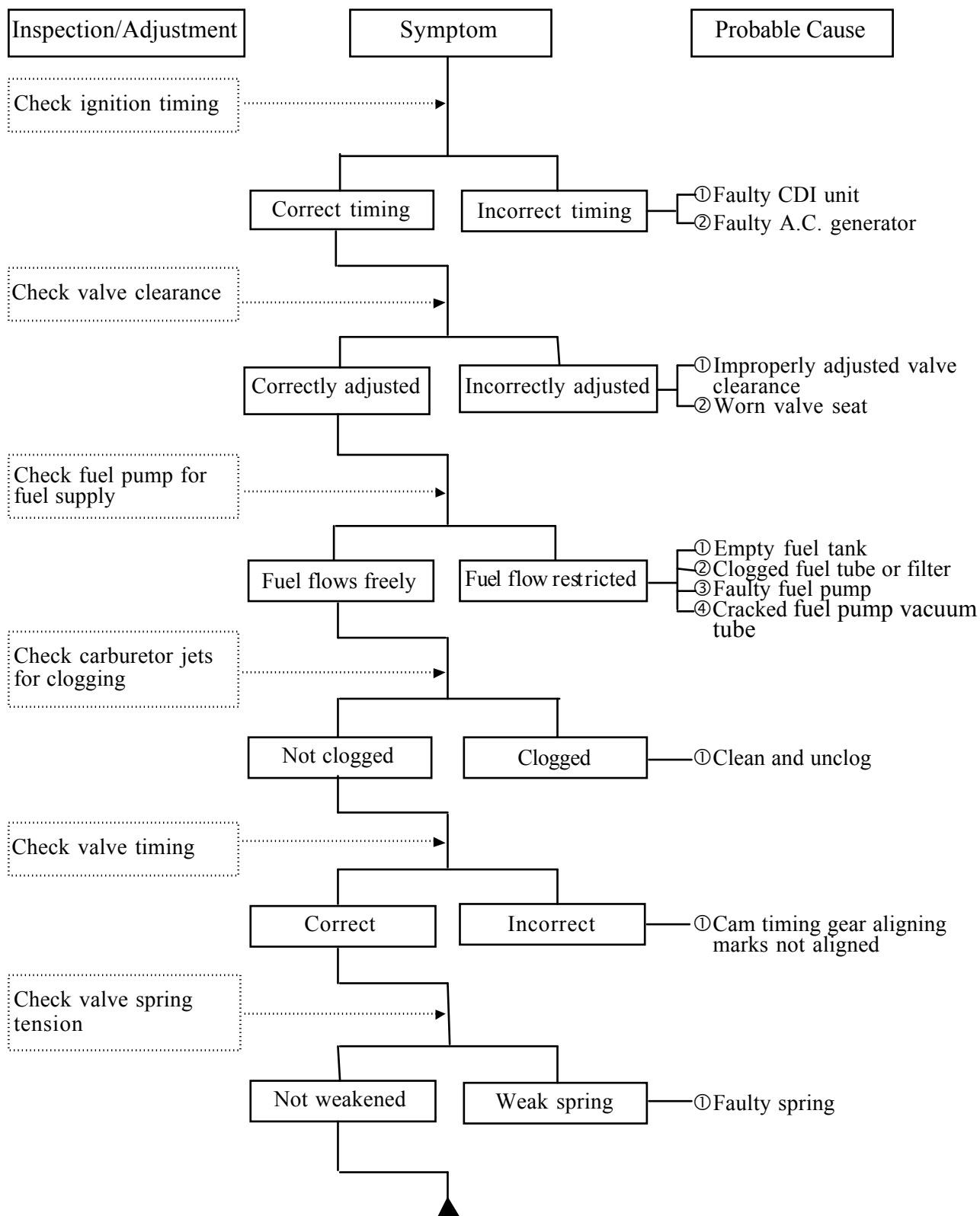
# 1. GENERAL INFORMATION

## POOR PERFORMANCE (ESPECIALLY AT IDLE AND LOW SPEEDS)



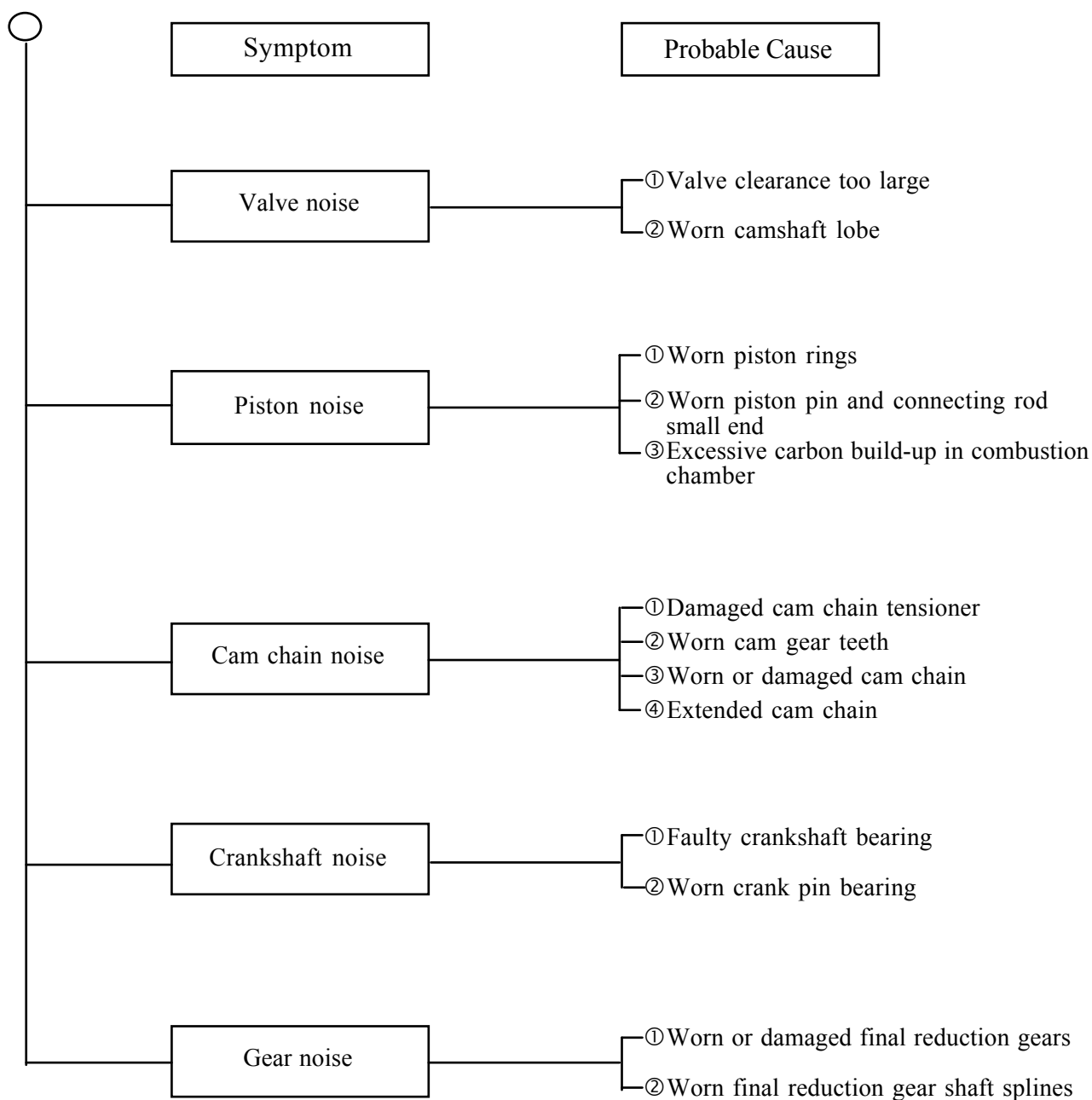
# 1. GENERAL INFORMATION

## POOR PERFORMANCE (AT HIGH SPEED)



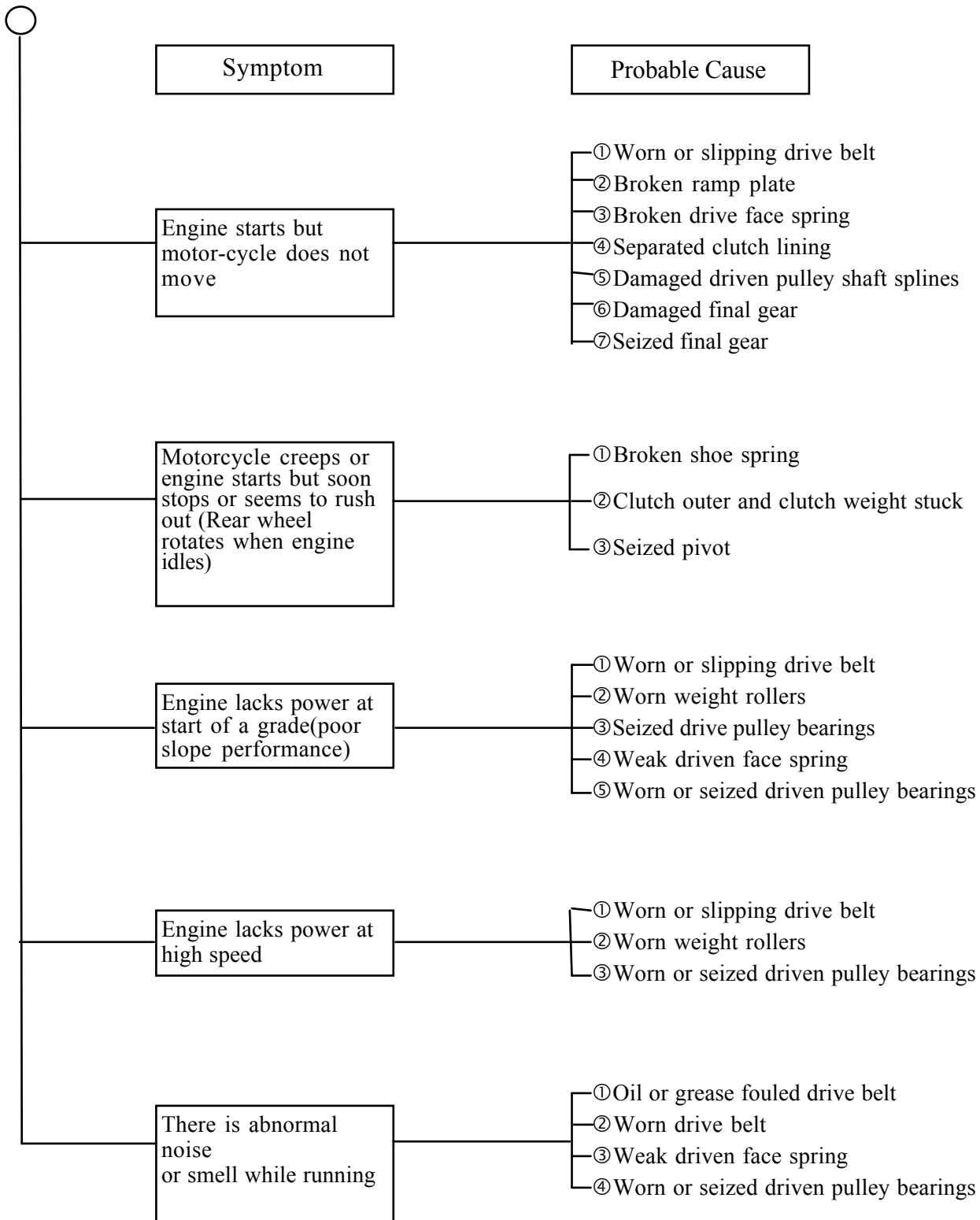
# 1. GENERAL INFORMATION

## ENGINE NOISE



# 1. GENERAL INFORMATION

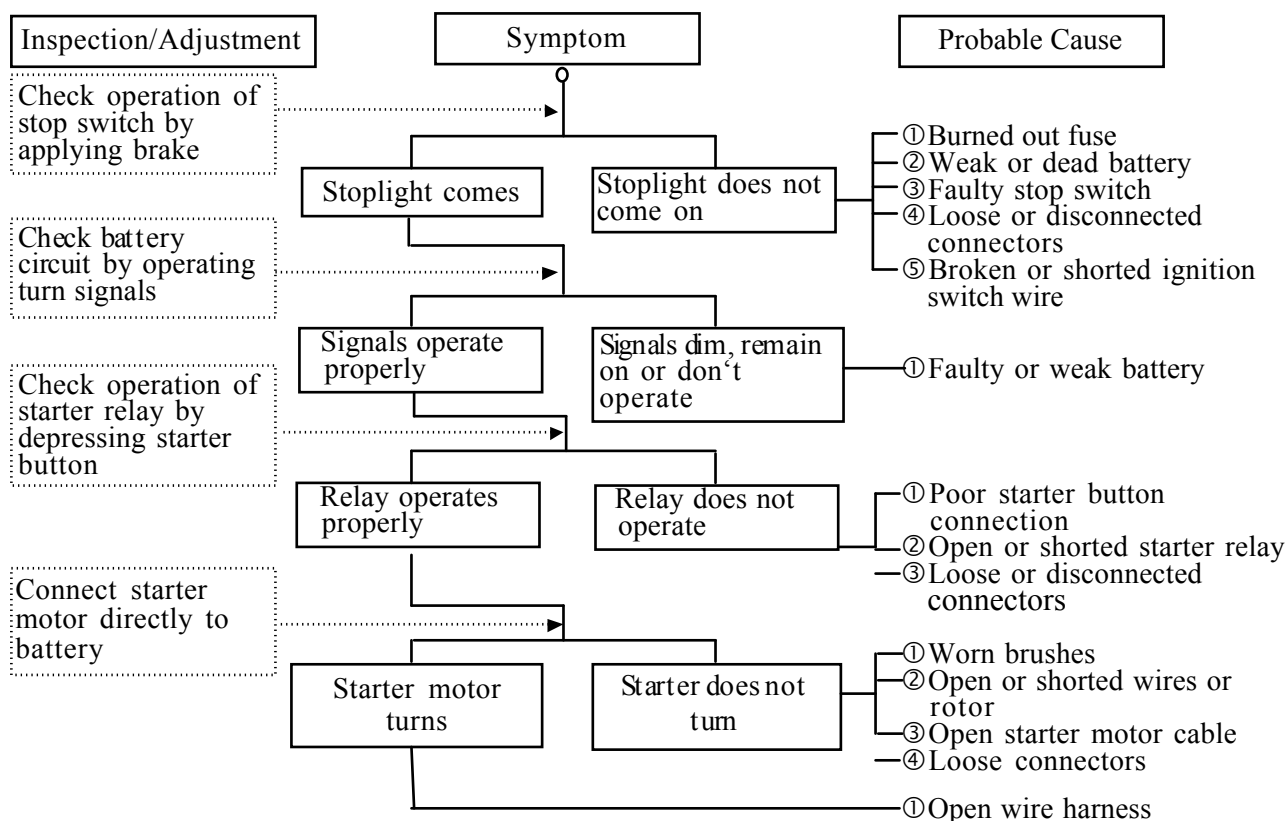
## CLUTCH, DRIVE AND DRIVEN PULLEYS



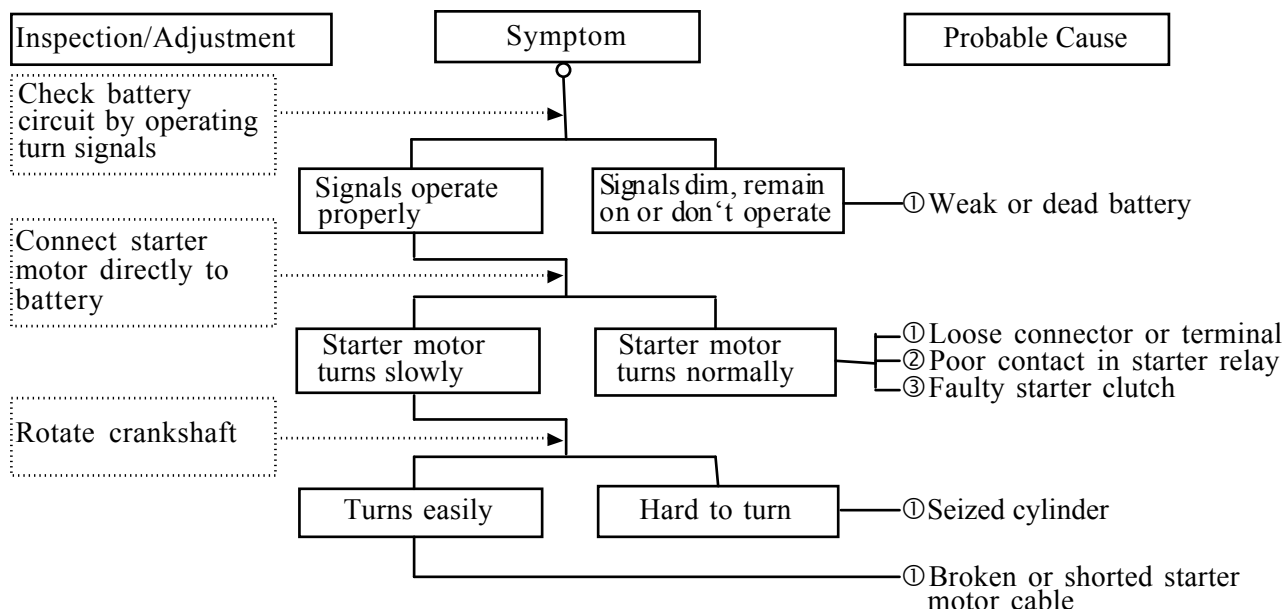
# 1. GENERAL INFORMATION

## STARTER MOTOR

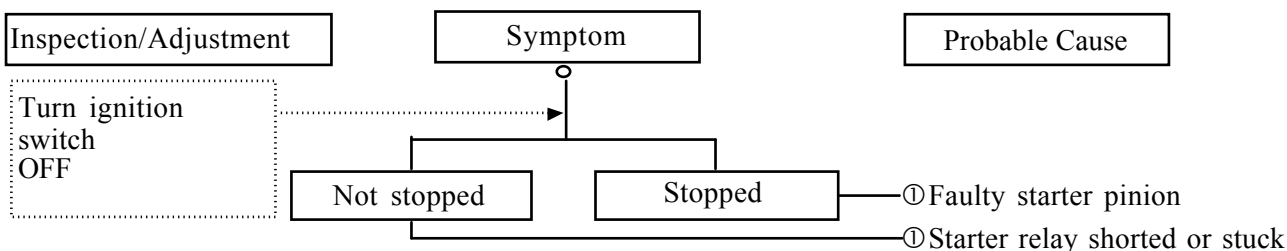
### 1. Starter motor won't turn



### 2. Starter motor turns slowly or idles



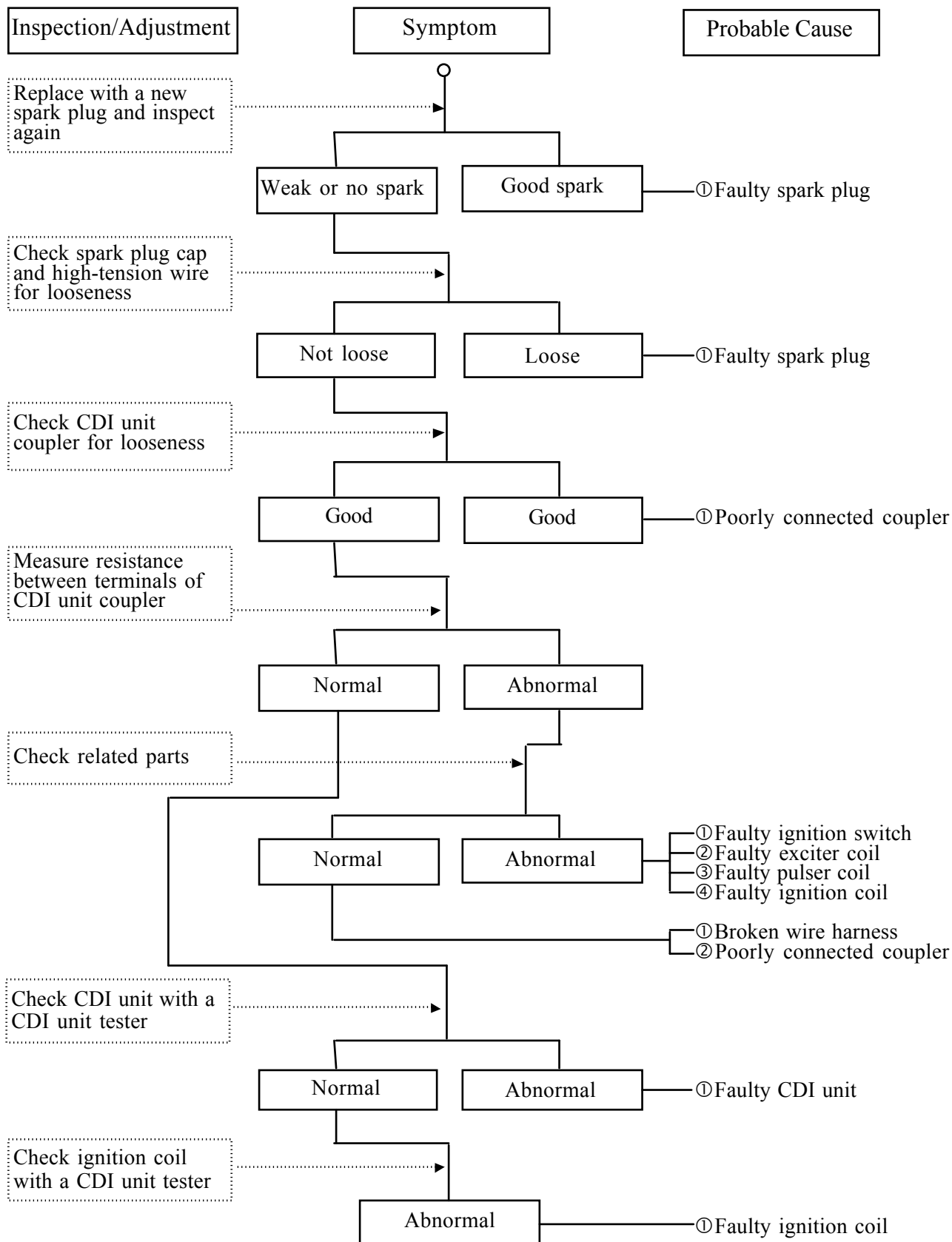
### 3. Starter motor does not stop turning



# 1. GENERAL INFORMATION

closed

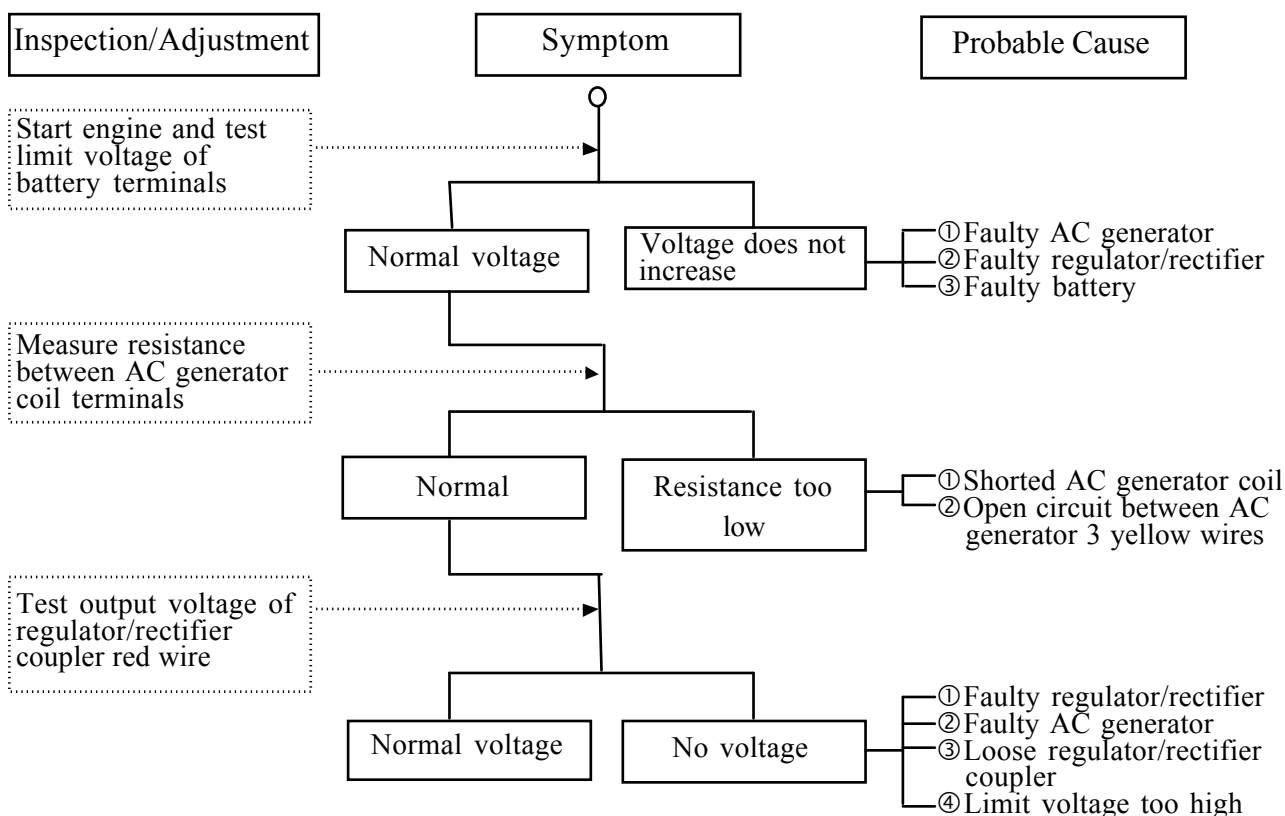
## NO SPARK AT SPARK PLUG



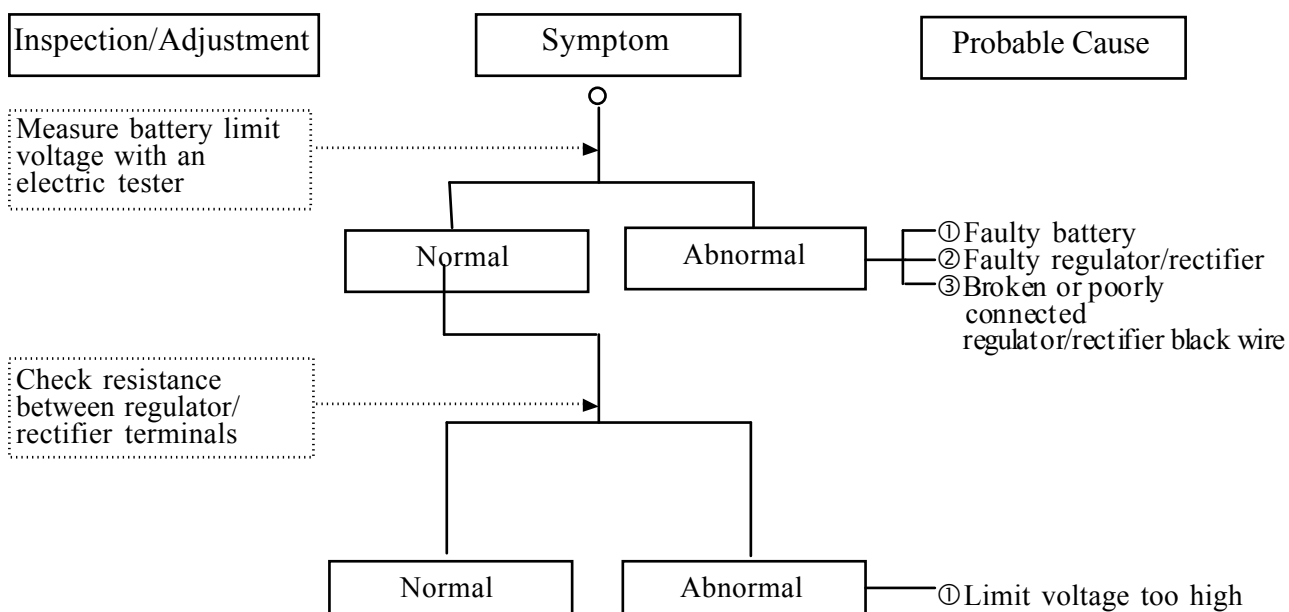
# 1. GENERAL INFORMATION

## POOR CHARGING (BATTERY OVER DISCHARGING OR OVERCHARGING)

### Undercharging



### Overcharging

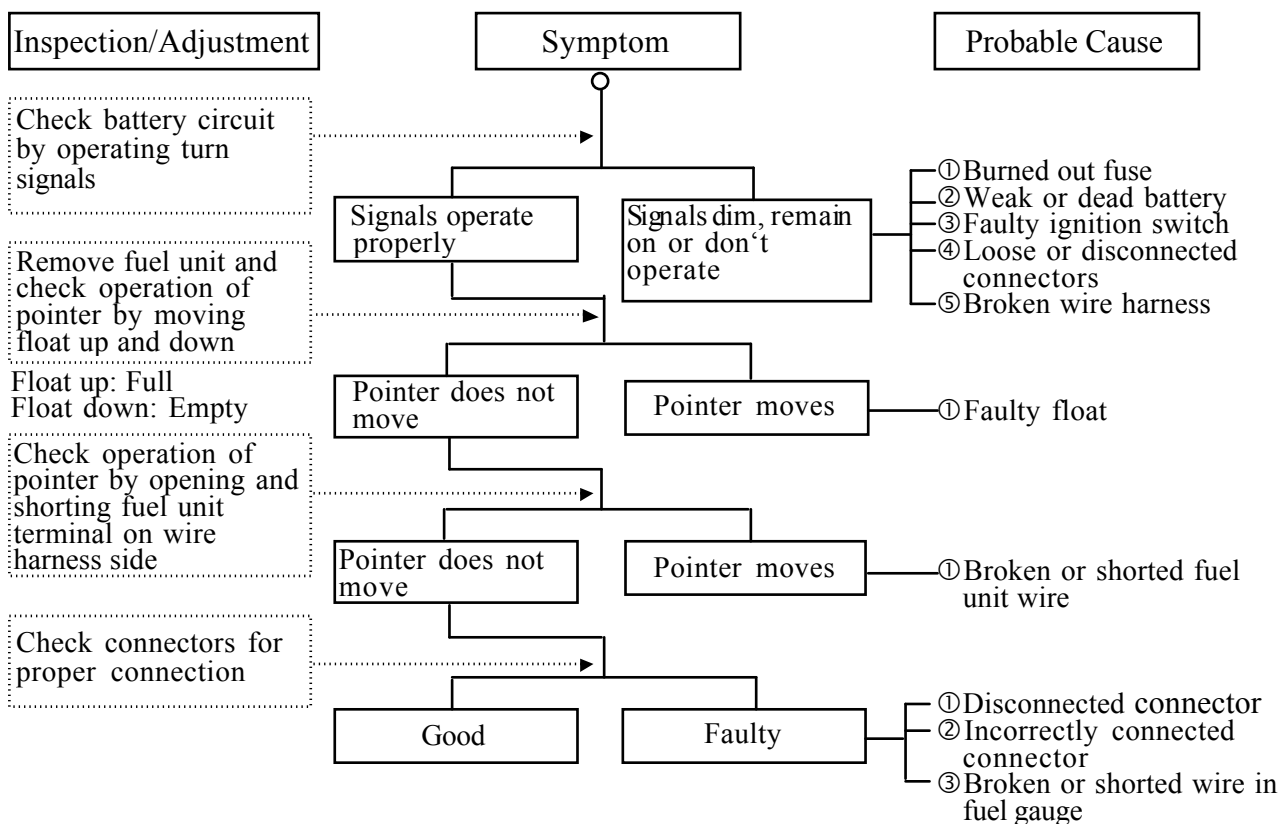




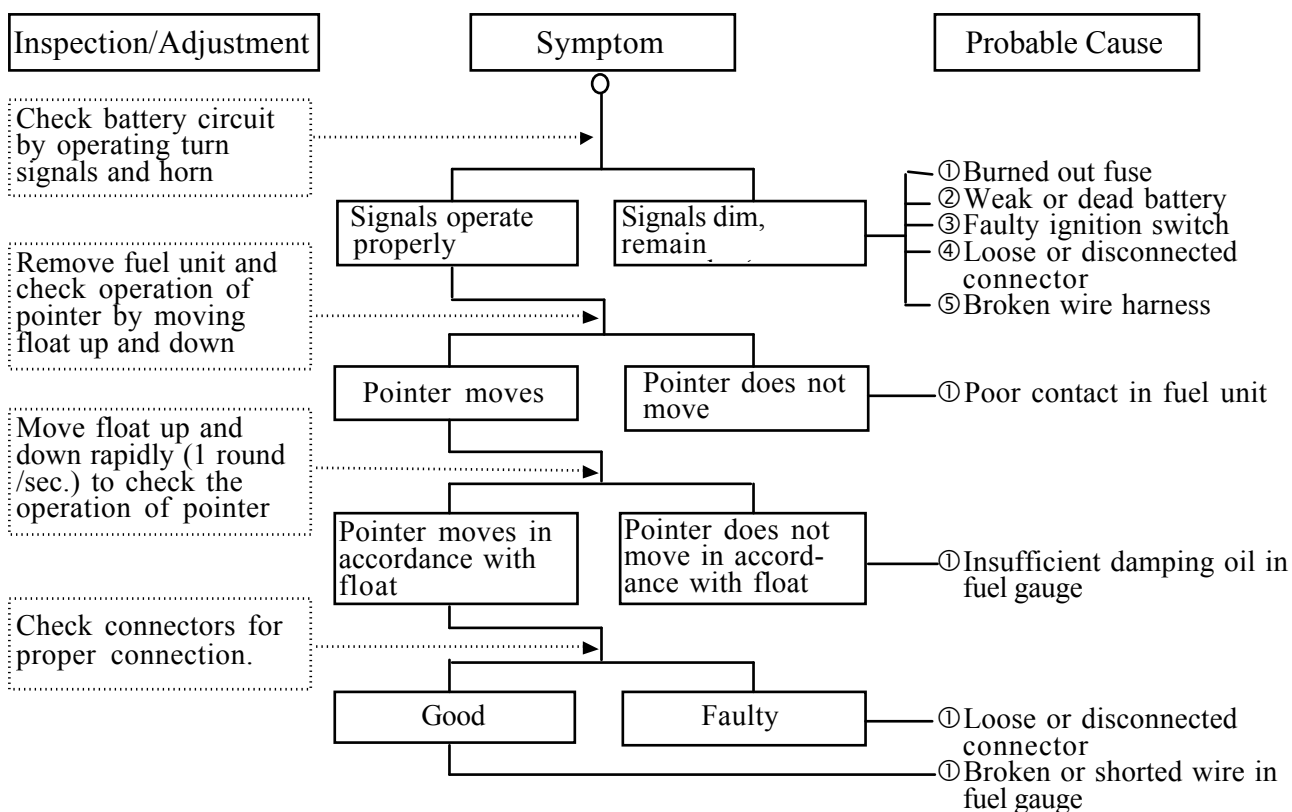
# 1. GENERAL INFORMATION

## FUEL GAUGE

### 1. Pointer does not register correctly (Ignition switch ON)

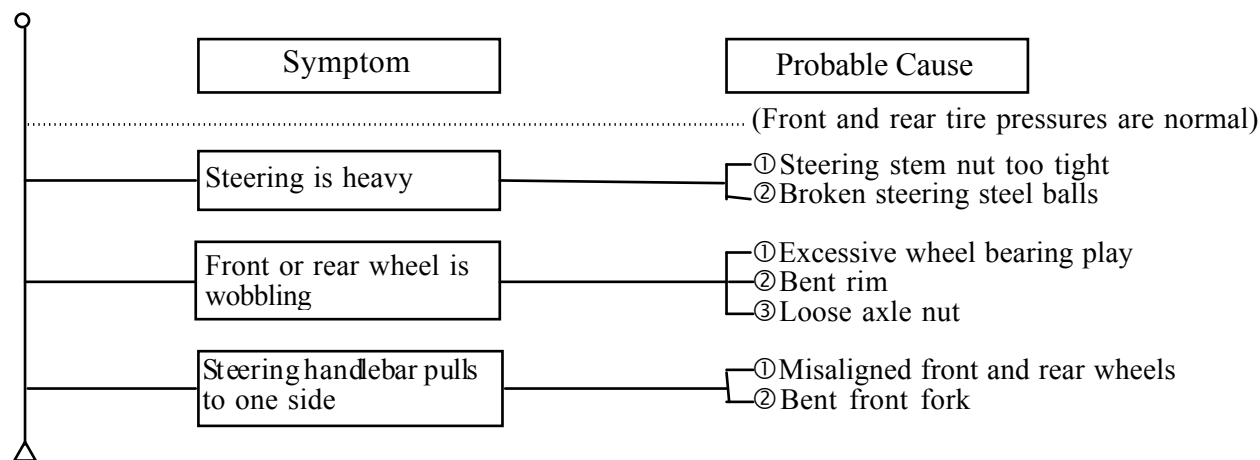


### 2. Pointer fluctuates or swings (Ignition switch ON)

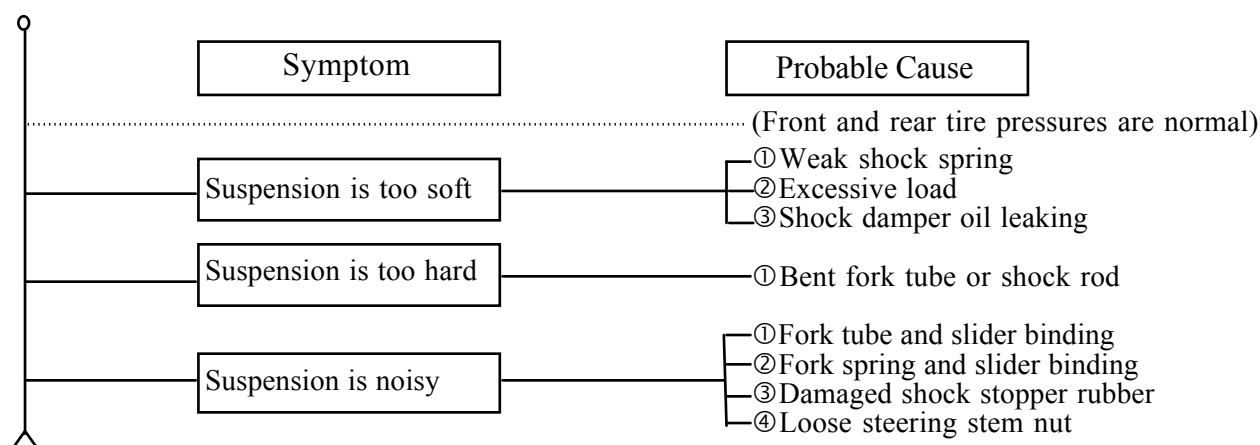


# 1. GENERAL INFORMATION

## STEERING HANDLEBAR DOES NOT TRACK STRAIGHT



## POOR SUSPENSION PERFORMANCE



## POOR BRAKE PERFORMANCE

