

**By KWANG YANG Motor Co., Ltd.  
First Edition, Jan 2006  
All rights reserved. Any reproduction or  
unauthorized use without the written  
permission of KWANG YANG Motor Co., Ltd.  
is expressly prohibited.  
4122-LLJ3/LDH1-S00**

---

## PREFACE

This Service Manual describes the technical features and servicing procedures for the KYMCO **People/People s 250**.

Section 1 contains the precautions for all operations stated in this manual. Read them carefully before any operation is started.

Section 2 is the removal/installation procedures for the frame covers which are subject to higher removal/installation frequency during maintenance and servicing operations.

Section 3 describes the inspection/adjustment procedures, safety rules and service information for each part, starting from periodic maintenance.

Sections 5 through 13 give instructions for disassembly, assembly and adjustment of engine parts. Section 14 is the removal/ installation of chassis. Section 16 states the testing and measuring methods of electrical equipment.

Most sections start with an assembly or system illustration and troubleshooting for the section. The subsequent pages give detailed procedures for the section.

The information and contents included in this manual may be different from the motorcycle in case specifications are changed.

**KWANG YANG MOTOR CO., LTD.**  
**OVERSEAS SALES DEPARTMENT**  
**OVERSEAS SERVICE SECTION**

## TABLE OF CONTENTS

ENGINE	GENERAL INFORMATION	1
	EXHAUST MUFFLER/FRAME COVERS	2
	INSPECTION/ADJUSTMENT	3
	LUBRICATION SYSTEM	4
	ENGINE REMOVAL/INSTALLATION	5
	CYLINDER HEAD/VALVES	6
	CYLINDER/PISTON	7
	DRIVE AND DRIVEN PULLEYS/V-BELT	8
	FINAL REDUCTION	9
	A.C. GENERATOR/STARTER CLUTCH	10
	CRANKCASE/CRANKSHAFT	11
	COOLING SYSTEM	12
	FUEL SYSTEM/CARBURETOR/FUEL PUMP FUEL TANK	13
CHASSIS	STEERING HANDLEBAR/FRONT WHEEL/FRONT BRAKE/FRONT SHOCK ABSORBER/FRONT FORK	14
	REAR BRAKE/REAR FORK/REAR WHEEL/REAR SHOCK ABSORBER`	15
ELECTRICAL EQUIPMENT	BATTERY/CHARGING SYSTEM	16
	IGNITION SYSTEM	17
	STARTING SYSTEM	18
	SWITCHES/HORN/FUEL UNIT/THERMO-STATIC SWITCH/TEMPERATURE GAUGE/INSTRUMENTS/ LIGHTS	19

# 1. GENERAL INFORMATION

---



---

## GENERAL INFORMATION

---

SERIAL NUMBER .....	1-1
SPECIFICATION .....	1-2
SERVICE PRECAUTIONS .....	1-4
TORQUE VALUES .....	1-8
SPECIAL TOOLS .....	1-9
LUBRICATION POINTS .....	1-10
CABLE & HARNESS ROUTING .....	1-12
WIRING DIAGRAM .....	1-20
TROUBLESHOOTING .....	1-22

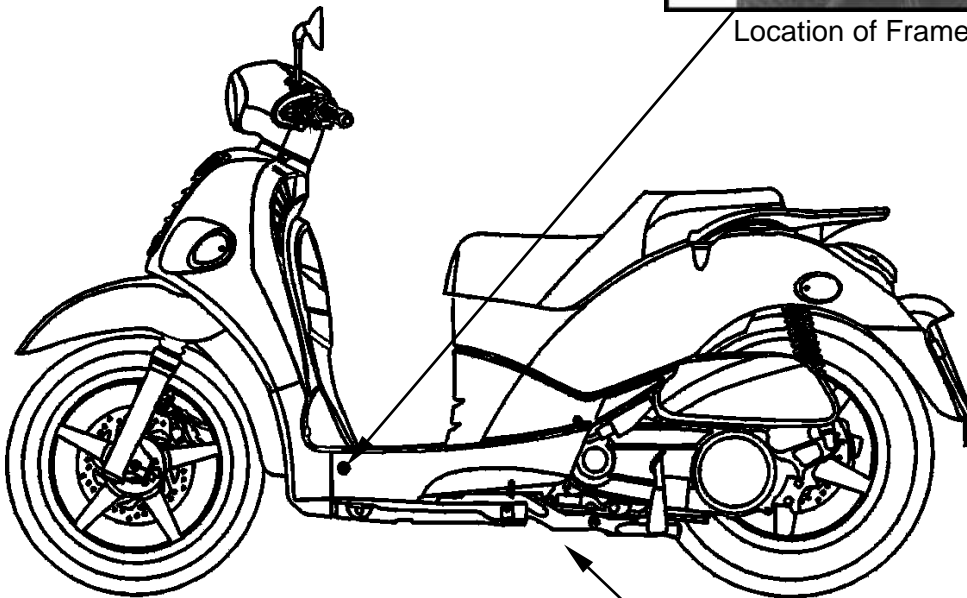
# 1. GENERAL INFORMATION

---

## SERIAL NUMBER



Location of Frame Serial Number



Location of Engine Serial Number

# 1. GENERAL INFORMATION

## SPECIFICATIONS

Name & Model No.		BC50AA		
Motorcycle Name & Type		PEOPLE 250		
Overall length		2130mm		
Overall width		750mm		
Overall height		1170mm		
Wheel base		1430mm		
Engine type		Water cooled 4-stroke, OHC engine		
Displacement		251/249.1cc		
Fuel Used		92# nonleaded gasoline		
1 person (55kg) weight (kg)	Front wheel	86		
	Rear wheel	127		
	Total	213		
2 person (110kg) weight(kg)	Front wheel	93		
	Rear wheel	175		
	Total	268		
Tires	Front wheel	110/70-16 52P		
	Rear wheel	140/70-16 65P		
Ground clearance		140mm		
Performance	Braking distance (m)	4.0m/30km/hr		
	Min. turning radius	2350mm		
Engine	Starting system		Starting motor	
	Type		Gasoline, 4-stroke	
	Cylinder arrangement		Single cylinder	
	Combustion chamber type		Semi-sphere	
	Valve arrangement		O.H.C.	
	Bore x stroke (mm)		72.7 x 60	
	Compression ratio		10.3:1	
	Compression pressure (kg/cm <sup>2</sup> )		15±2	
	Max. output (ps/rpm)		18.3/7000	
	Max. torque (kg.m/rpm)		2.0/5500	
	Port timing	Intake	BTDC	-8°
			ABDC	42°
		Exhaust	BBDC	33°
			ATDC	1°
	Valve clearance (cold)	Intake	0.1	
		Exhaust	0.1	
	Idle speed (rpm)		1700±100rpm	
	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		8.5 liters		
Carburetor		Type	CVK	
		Piston dia.	30	
	Venturi dia.	30 equivalent		
	Throttle type	Butterfly type		
Electrical Equipment	Ignition System	Type	Full transistor igniter	
		Ignition timing	Repeatedly	
		Contact breaker	Non-contact point type	
		Spark plug	NGK DPR7EA-9	
	Spark plug gap	0.7mm		
	Battery	Capacity	12V10AH	
Power Drive System	Clutch	Type	Dry multi-disc clutch	
		Transmission Gear	Type	Non-stage transmission
	Operation		Automatic centrifugal Type	
	Reduction Gear		Type	Two-stage reduction
		Reduction ratio	1st Final	0.83~2.2 8.72
Moving Device	Tire pressure (kgf/cm <sup>2</sup> )	Front	1.75	
		Rear	2.0	
	Turning angle	Left	45°	
Right		45°		
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

## SPECIFICATIONS

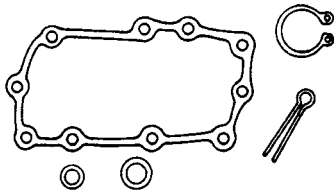
Name & Model No.		BA50AA		
Motorcycle Name & Type		PEOPLE S 250		
Overall length		2140mm		
Overall width		750mm		
Overall height		1370mm		
Wheel base		1480mm		
Engine type		Water cooled 4-stroke, OHC engine		
Displacement		251/249.1cc		
Fuel Used		92# unleaded gasoline		
1 person (55kg) weight (kg)	Front wheel	86		
	Rear wheel	127		
	Total	213		
2 person (110kg) weight(kg)	Front wheel	93		
	Rear wheel	175		
	Total	268		
Tires	Front wheel	110/70-16 52P		
	Rear wheel	140/70-16 65P		
Ground clearance		145mm		
Performance	Braking distance (m)	4.0m/30km/hr		
	Min. turning radius	2350mm		
Engine	Starting system		Starting motor	
	Type		Gasoline, 4-stroke	
	Cylinder arrangement		Single cylinder	
	Combustion chamber type		Semi-sphere	
	Valve arrangement		O.H.C.	
	Bore x stroke (mm)		72.9 x 60/72.7 x 60	
	Compression ratio		10.3:1	
	Compression pressure (kg/cm <sup>2</sup> )		15±2	
	Max. output (ps/rpm)		20.1/7500	
	Max. torque (kg.m/rpm)		2.1/6500	
	Port timing	Intake	BTDC	9°
			ABDC	40°
		Exhaust	BBDC	42°
			ATDC	7°
	Valve clearance (cold)	Intake	0.1	
		Exhaust	0.1	
	Idle speed (rpm)		1600±100rpm	
	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		10.0 liters	
	Carburetor	Type	CVK	
		Piston dia.	30	
Venturi dia.		30 equivalent		
Throttle type		Butterfly type		
Electrical Equipment	Ignition System	Type	Full transistor igniter	
		Ignition timing	Repeatedly	
		Contact breaker	Non-contact point type	
		Spark plug	NGK DPR7EA-9	
	Spark plug gap	0.7mm		
	Battery	Capacity	12V10AH	
Power Drive System	Clutch	Type	Dry multi-disc clutch	
	Transmission Gear	Type	Non-stage transmission	
		Operation	Automatic centrifugal Type	
	Reduction Gear	Type	Two-stage reduction	
Reduction ratio		1st	0.83~2.2	
		Final	8.72	
Moving Device	Tire pressure (kgf/cm <sup>2</sup> )	Front	1.75	
		Rear	2.0	
	Turning angle	Left	45°	
Right		45°		
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		

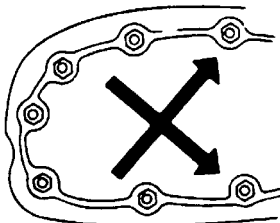
# 1. GENERAL INFORMATION

## SERVICE PRECAUTIONS

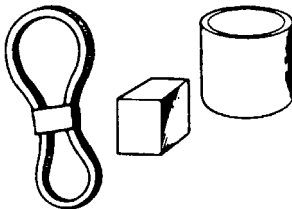
- Make sure to install new gaskets, O-rings, circlips, cotter pins, etc. when reassembling.



- 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.



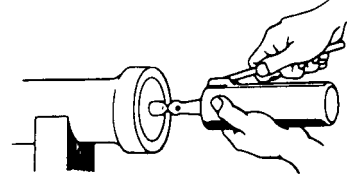
- When servicing the motorcycle, be sure to use special tools for removal and installation.



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



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



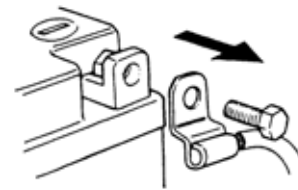
- After reassembly, check all parts for proper tightening and operation.



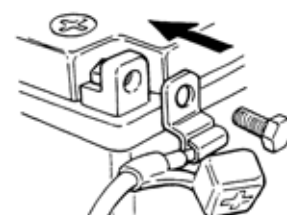
- When two persons work together, pay attention to the mutual working safety.



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

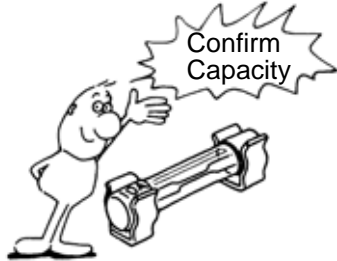


- After operation, check all connecting points, fasteners, and lines for proper connection and installation.
- When connecting the battery, the positive (+) terminal must be connected first.
- After connection, apply grease to the battery terminals.
- Terminal caps shall be installed securely.

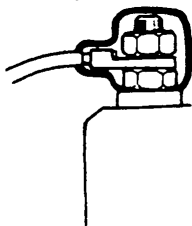


# 1. GENERAL INFORMATION

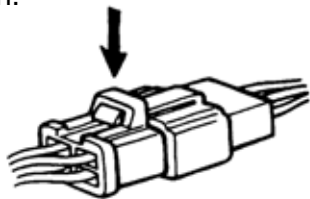
- If the fuse is burned out, find the cause and repair it. Replace it with a new one according to the specified capacity.



- After operation, terminal caps shall be installed securely.



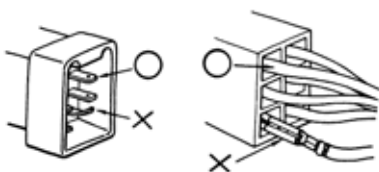
- When taking out the connector, the lock on the connector shall be released before operation.



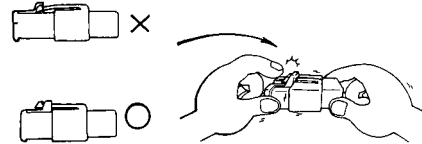
- Hold the connector body when connecting or disconnecting it.
- Do not pull the connector wire.



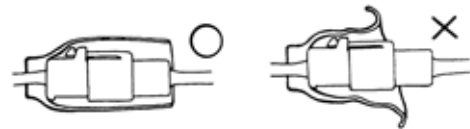
- Check if any connector terminal is bending, protruding or loose.



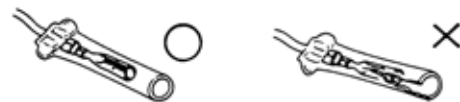
- The connector shall be inserted completely.
- If the double connector has a lock, lock it at the correct position.
- Check if there is any loose wire.



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



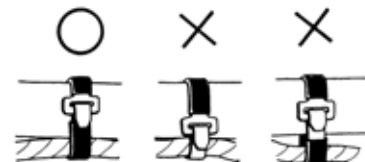
- Check the double connector cover for proper coverage and installation.



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



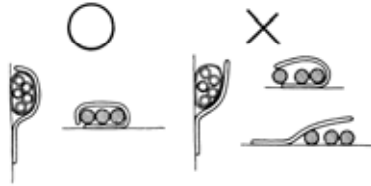
- Secure wire harnesses to the frame with their respective wire bands at the designated locations. Tighten the bands so that only the insulated surfaces contact the wire harnesses.



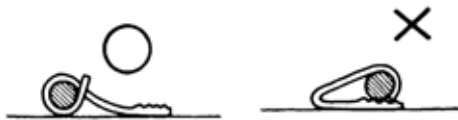


# 1. GENERAL INFORMATION

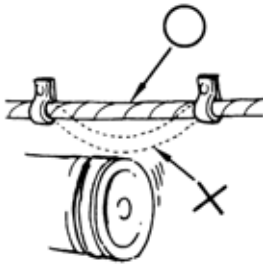
- After clamping, check each wire to make sure it is secure.



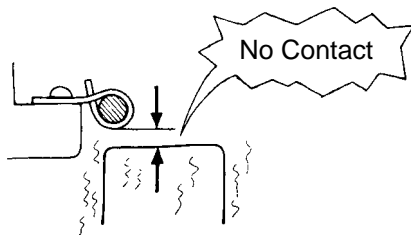
- Do not squeeze wires against the weld or its clamp.



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



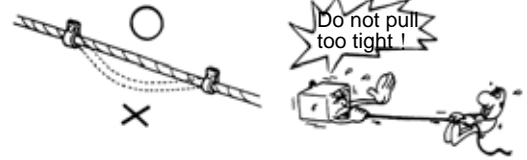
- When fixing the wire harnesses, do not make it contact the parts which will generate high heat.



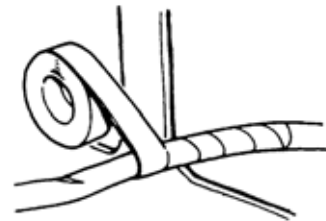
- Route wire harnesses to avoid sharp edges or corners. Avoid the projected ends of bolts and screws.
- Route wire harnesses passing through the side of bolts and screws. Avoid the projected ends of bolts and screws.



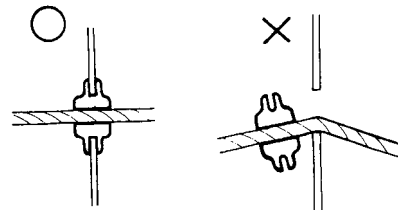
- Route harnesses so they are neither pulled tight nor have excessive slack.



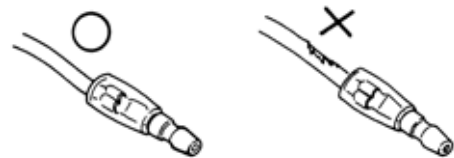
- Protect wires and harnesses with electrical tape or tube if they contact a sharp edge or corner.



- 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.

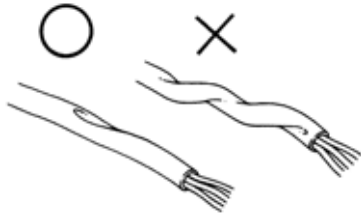


- When installing other parts, do not press or squeeze the wires.

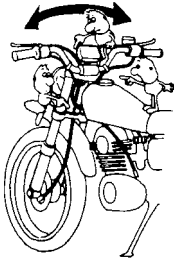


# 1. GENERAL INFORMATION

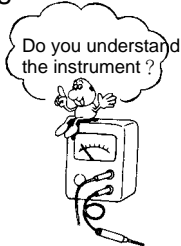
- After routing, check that the wire harnesses are not twisted or kinked.



- 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.



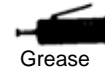
- Symbols:

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



Engine Oil

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



Grease

: Apply grease for lubrication.



Gear Oil

: Transmission Gear Oil (90#)



: Use special tool.



: Caution



: Warning

# 1. GENERAL INFORMATION

## TORQUE VALUES

### STANDARD TORQUE VALUES

Item	Torque (N-m)	Item	Torque (N-m)
5mm bolt, nut	4.5~6	5mm screw	3.5~5
6mm bolt, nut	8~12	6mm screw, SH bolt	7~11
8mm bolt, nut	18~25	6mm flange bolt, nut	10~14
10mm bolt, nut	30~40	8mm flange bolt, nut	24~30
12mm bolt, nut	50~60	10mm flange bolt, nut	35~45

Torque specifications listed below are for important fasteners.

### ENGINE

Item	Q'ty	Thread dia.(mm)	Torque (N-m)	Remarks
Cylinder head bolt A	2	8	8.9	Double end bolt
Cylinder head bolt B	2	8	8.9	
Oil filter screen cap	1	30	12.7	Apply oil to threads
Cylinder head cap nut	4	8	24.5	
Valve adjusting lock nut	2	5	8.8	
Cam chain tensioner slipper bolt	1	6	8.8	
Oil bolt	1	12	14.7	
Clutch outer nut	1	12	53.9	
Clutch drive plate nut	1	14	53.9	
Flywheel nut	1	14	58.8	
Oil pump bolt	2	5	3.9	
Cylinder head cover bolt	4	6	11.8	
Spark plug	1	6	11.8	
Cam chain tensioner bolt	1	8	11.8	
Water pump impeller	1	12	93	
Drive face nut	9	8	20	
Transmission case cover bolt	1	8	10	
Gear oil check bolt				

# 1. GENERAL INFORMATION

## FRAME

Item	Q'ty	Thread dia.(mm)	Torque (N-m)	Remarks
Steering stem lock nut	1	10	40~50	
Front axle nut	1	14	60~70	
Rear axle nut	1	16	110~130	
Rear shock absorber upper bolt	2	10	35~45	
Rear shock absorber lower bolt	2	10	35~45	
Front shock absorber lock bolt	4	8	29~35	
Engine hanger bolt (frame side)	2	12	45~55	
Engine hanger bolt (ENG. side)	1	10	45~55	
Front caliper holder bolt	2	8	24~30	
Rear caliper holder bolt	2	8	29~35	
Master cylinder holder bolt	4	6	10~14	
Exhaust muffler pipe nut	2	8	18~22	
Exhaust muffler bolt	3	8	32~38	
Rear fork bolt	2	8	29~35	

## SPECIAL TOOLS

Tool Name	Tool No.	Remarks	Ref. Page
Clutch spring compressor	E034	Clutch disassembly	
Bearing puller 10,12,15,18mm	E037	Bearing removal	
Valve spring compressor	E040	Valve removal	
Oil seal & bearing installer	E014	Oil seal & bearing install	
Tappet adjuster	E036	Tappet adjustment	
Flywheel puller	E003	A.C. generator flywheel removal	
Universal holder	E017	Holding clutch for removal	
Flywheel holder	E021	A.C. generator flywheel holding	
Lock nut socket wrench	F002	Steering stem removal or install	
Float level gauge		Carburetor fuel level check	

# 1. GENERAL INFORMATION

## 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

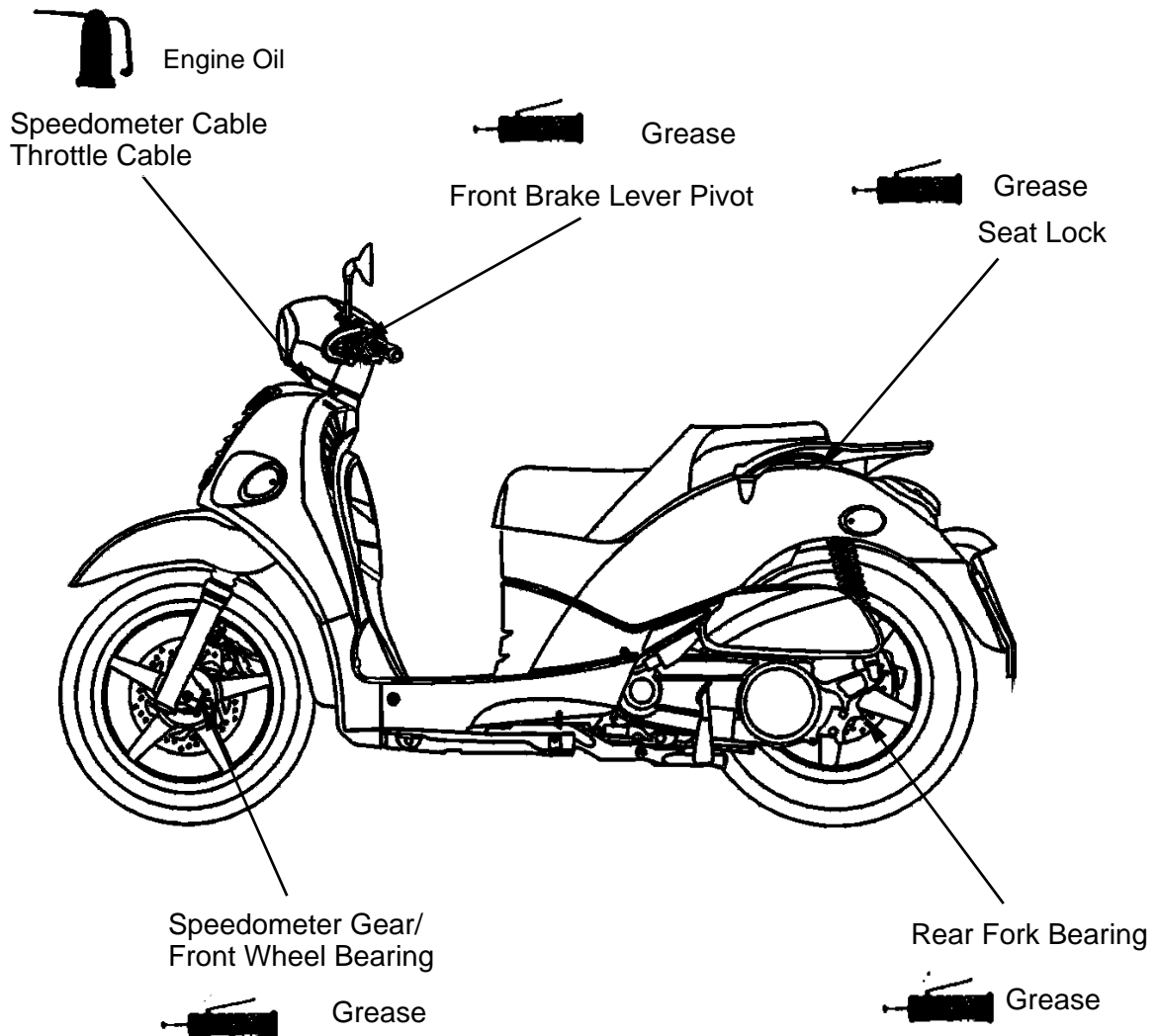
# 1. GENERAL INFORMATION

## FRAME

The following is the lubrication points for the frame.

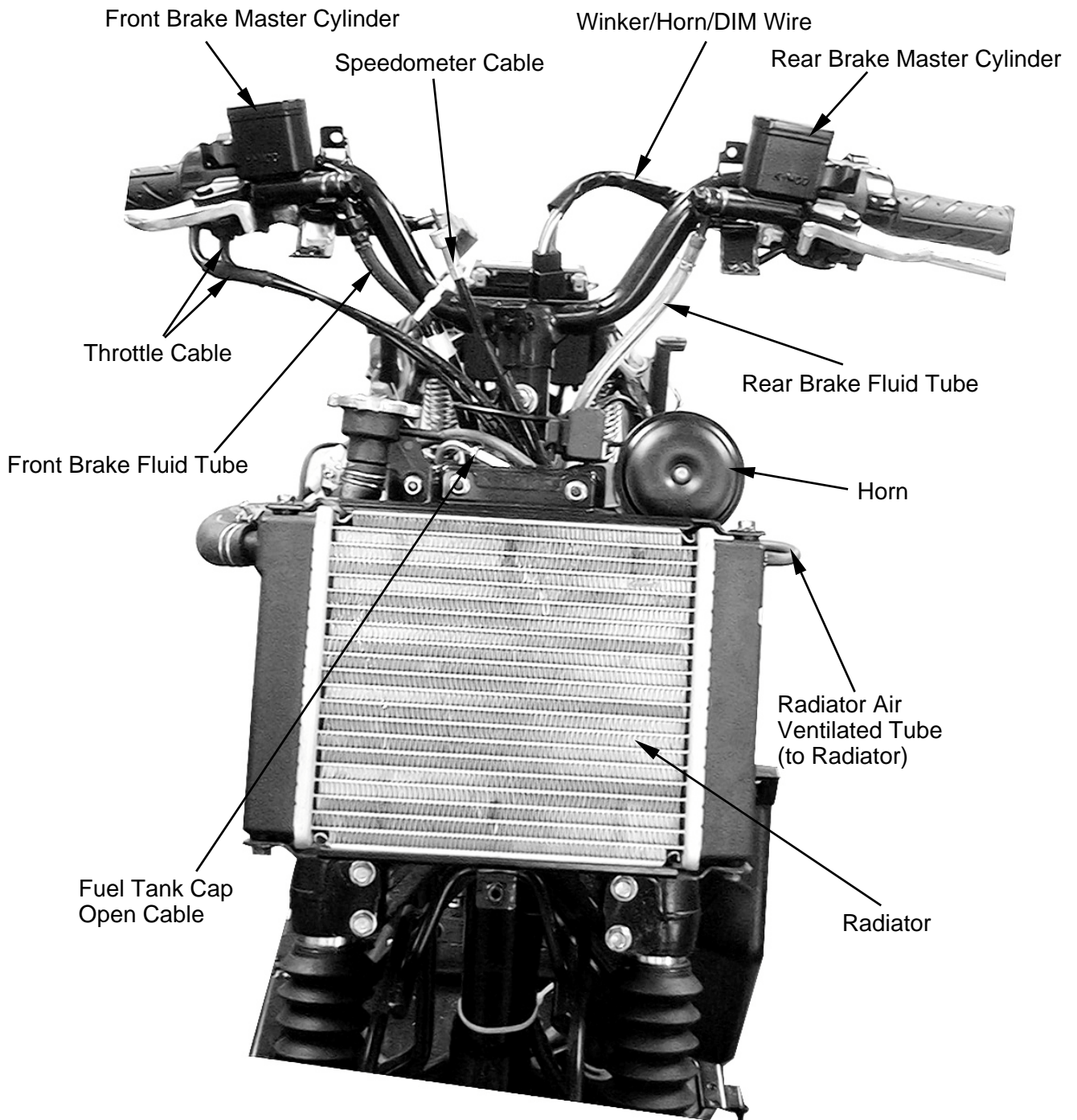
Use general purpose grease for parts not listed.

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.

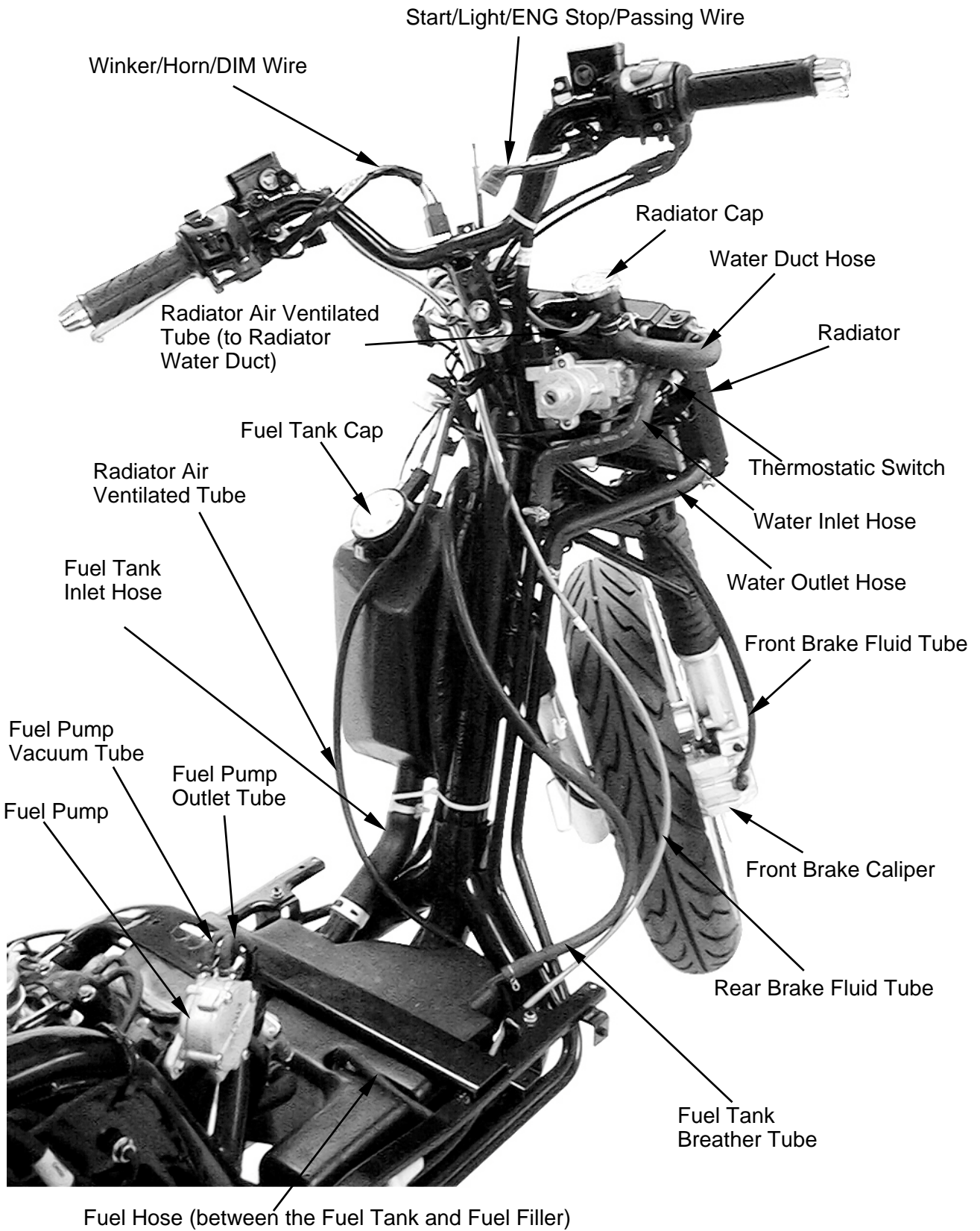


# 1. GENERAL INFORMATION

## CABLE & HARNESS ROUTING

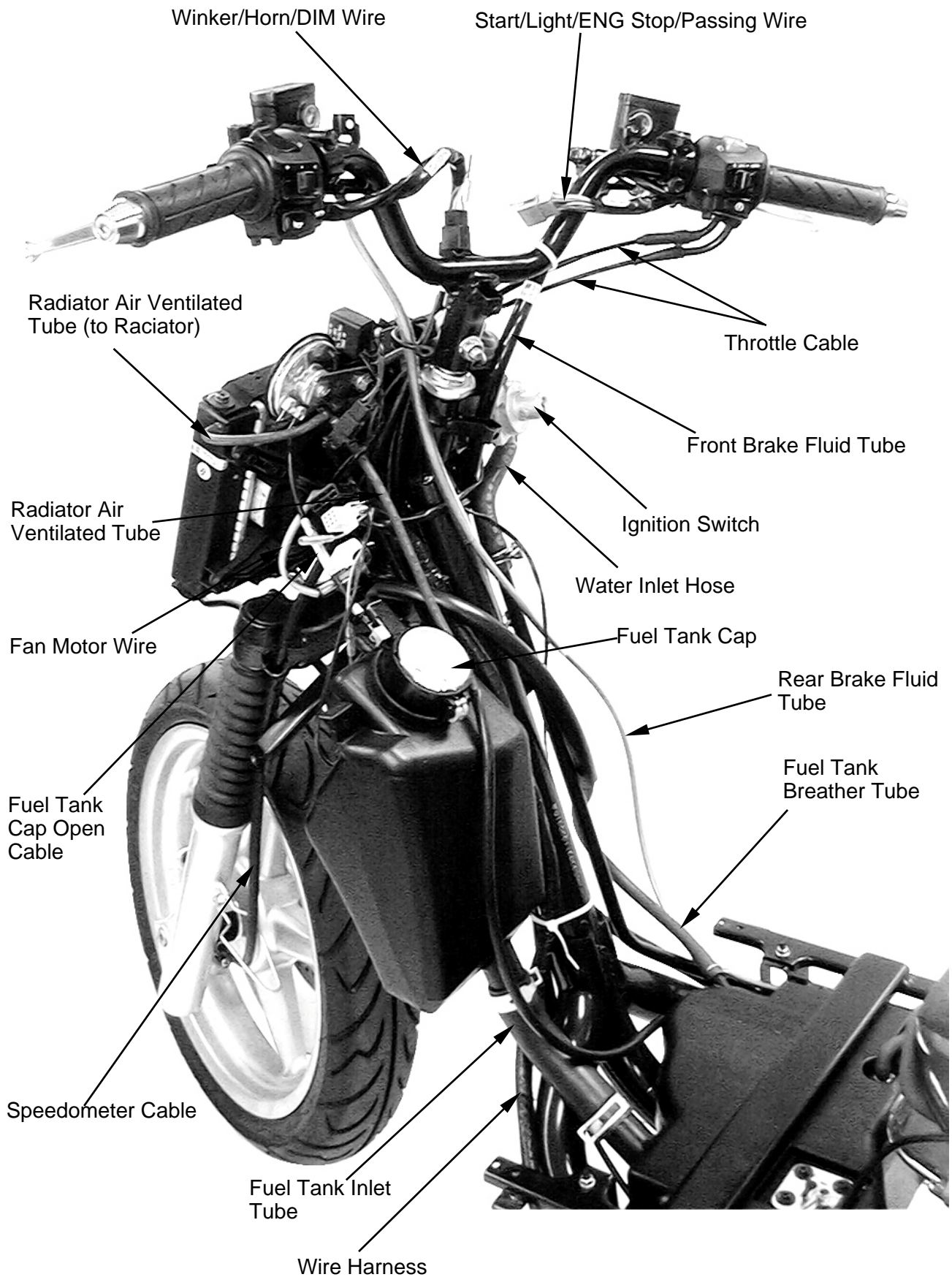


# 1. GENERAL INFORMATION

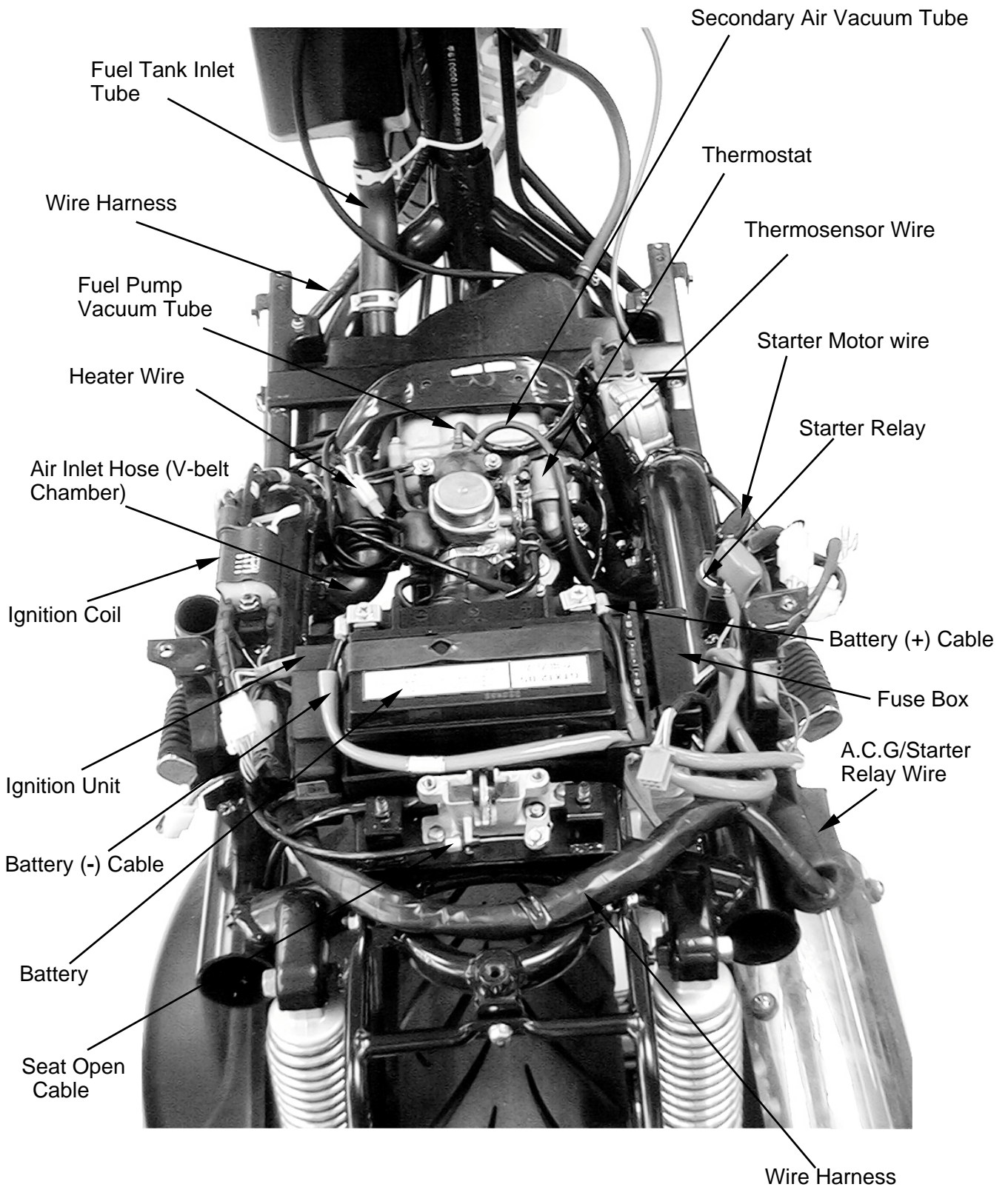




# 1. GENERAL INFORMATION

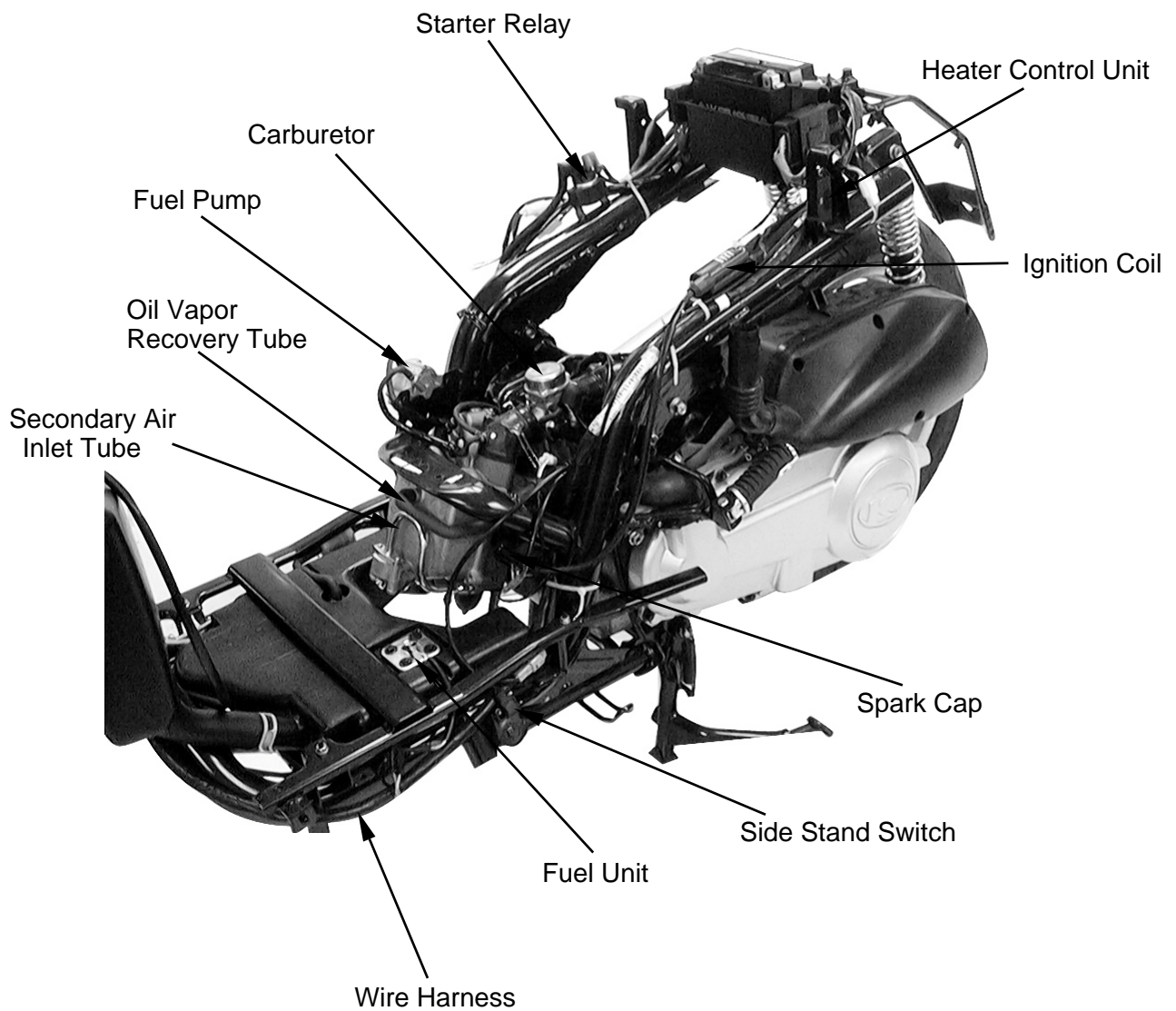


# 1. GENERAL INFORMATION



# 1. GENERAL INFORMATION

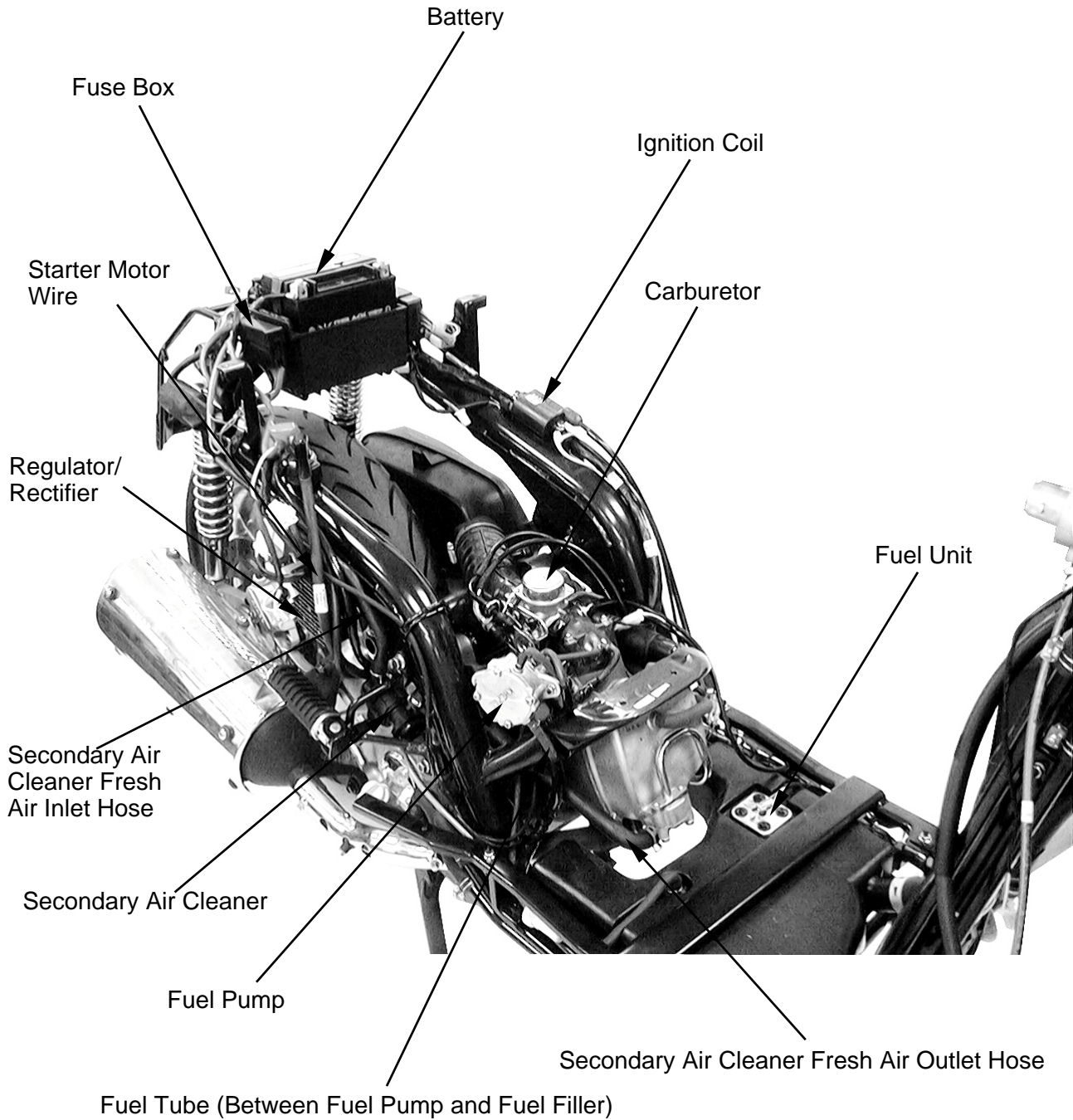
---



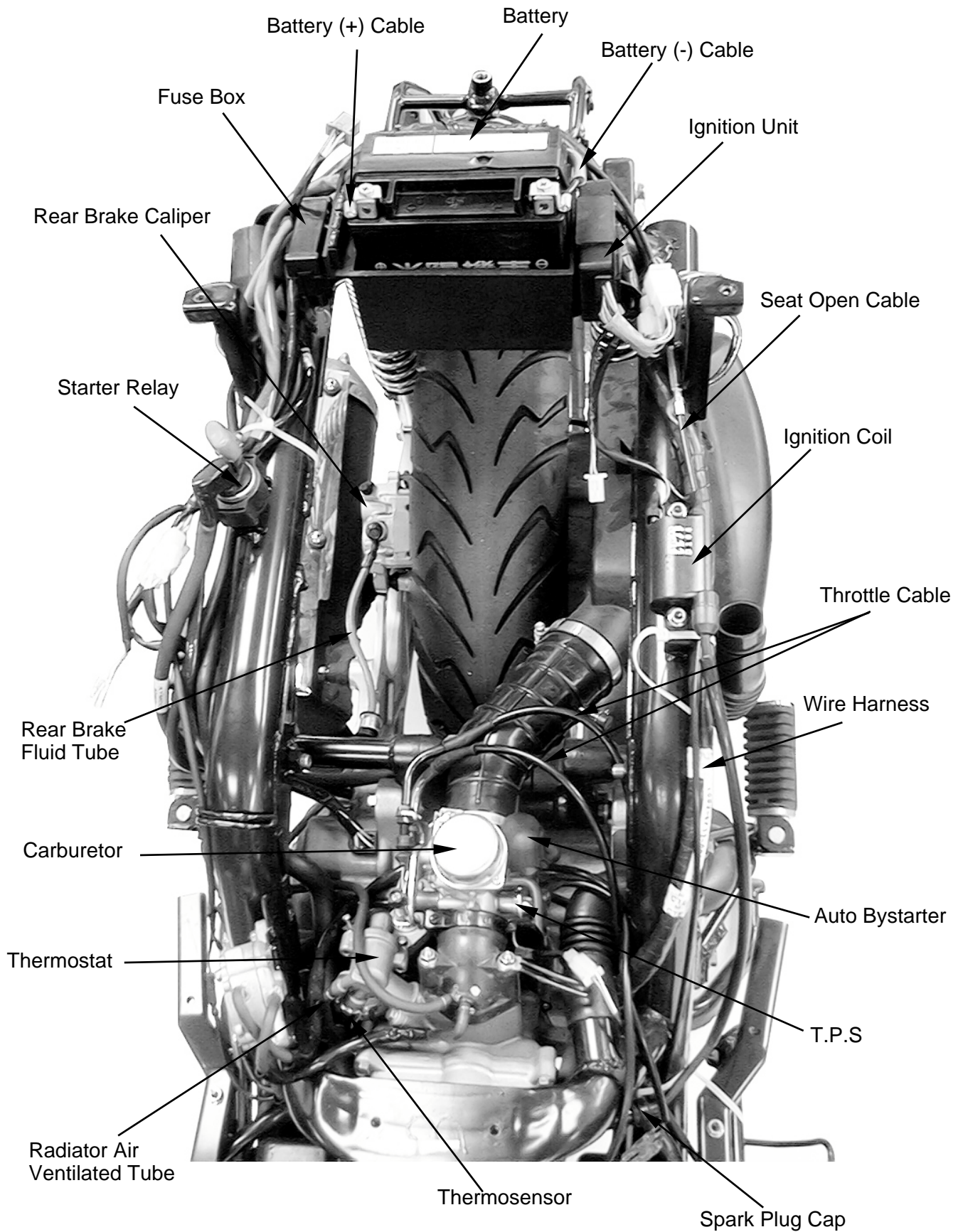


# 1. GENERAL INFORMATION

---

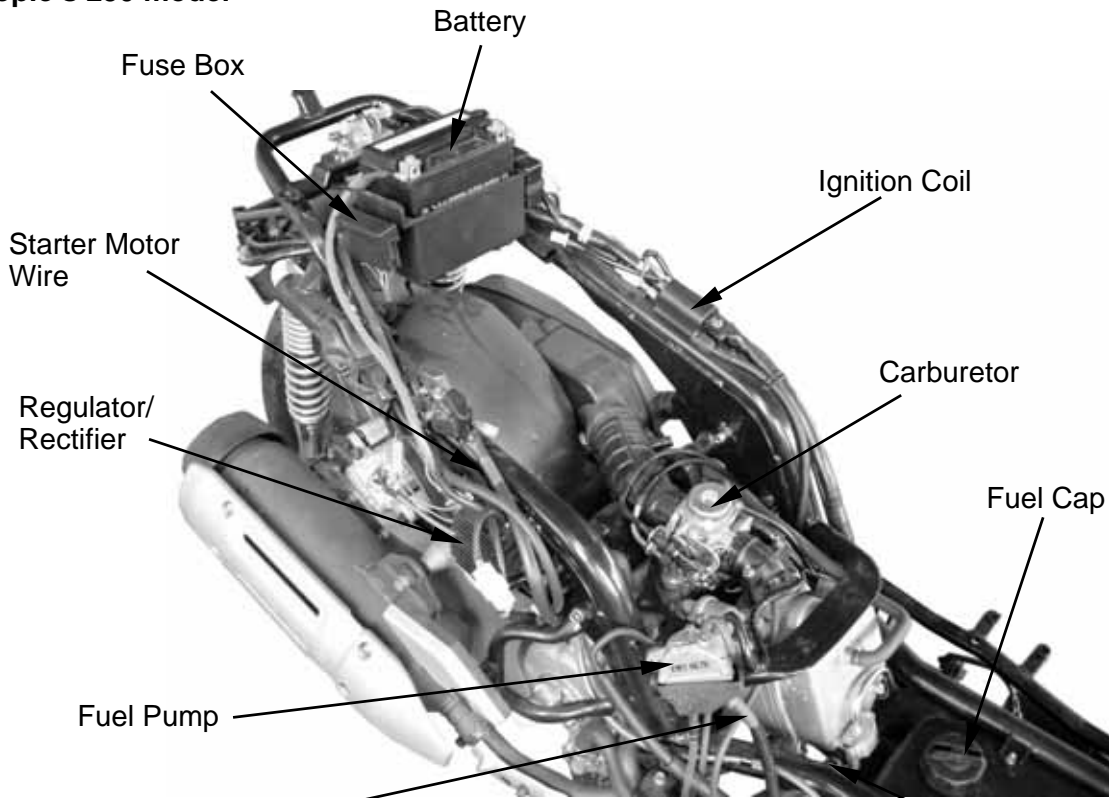


# 1. GENERAL INFORMATION

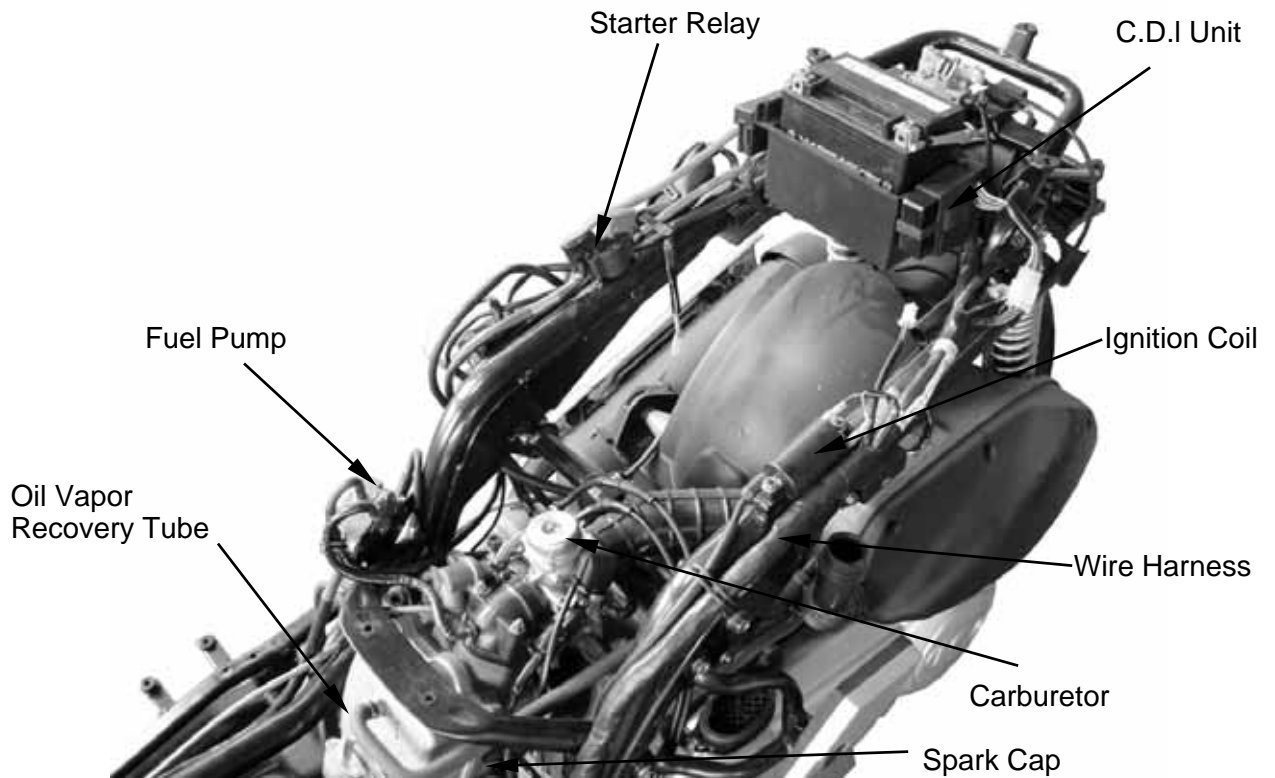


# 1. GENERAL INFORMATION

## People s 250 model

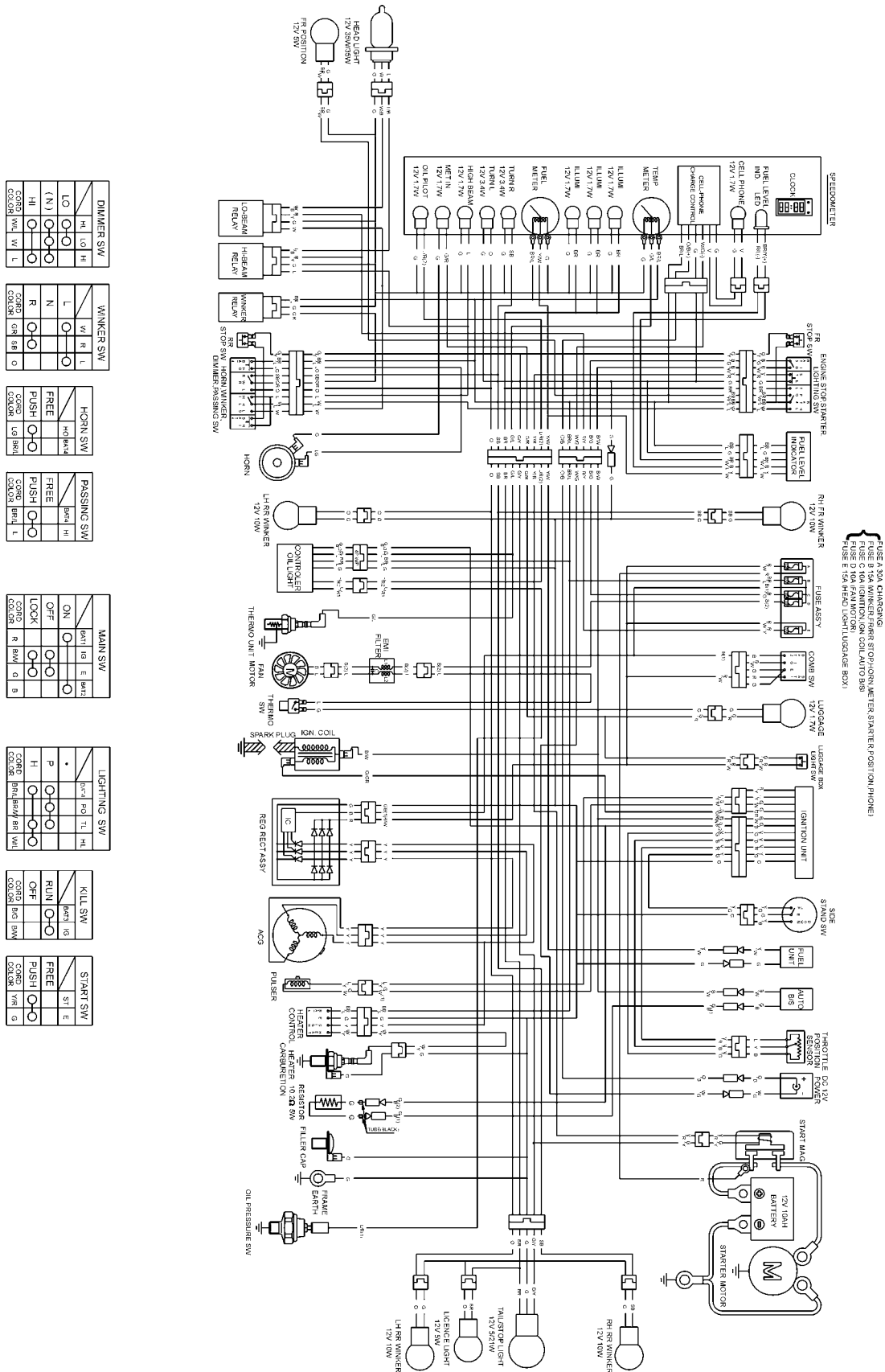


Fuel Tube (Between Fuel Pump and Fuel Filler) Secondary Air Cleaner Fresh Air Outlet Hose



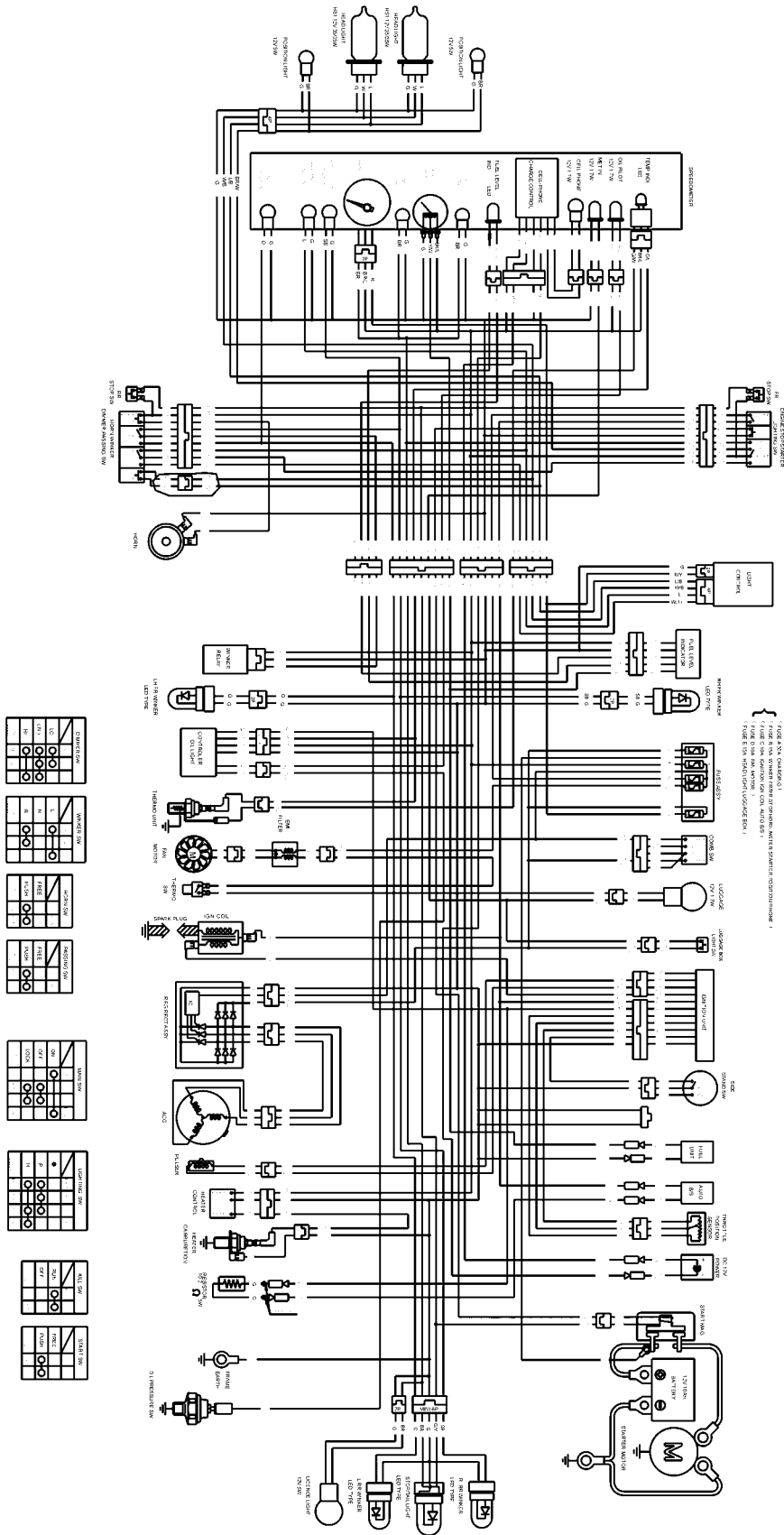
# 1. GENERAL INFORMATION

## WIRING DIAGRAM (PEOPLE 250)



# 1. GENERAL INFORMATION

## WIRING DIAGRAM (PEOPLE S 250)

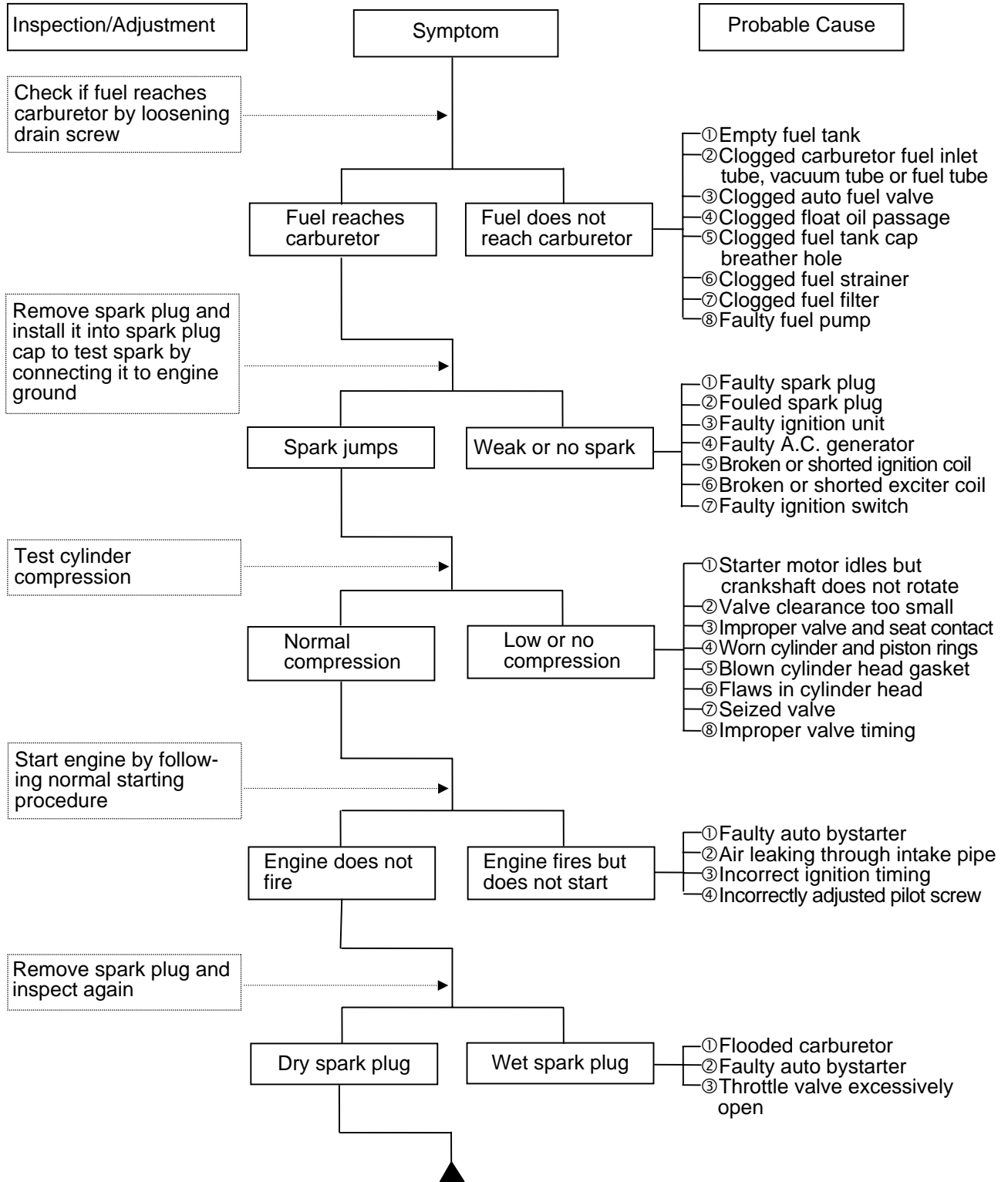




# 1. GENERAL INFORMATION

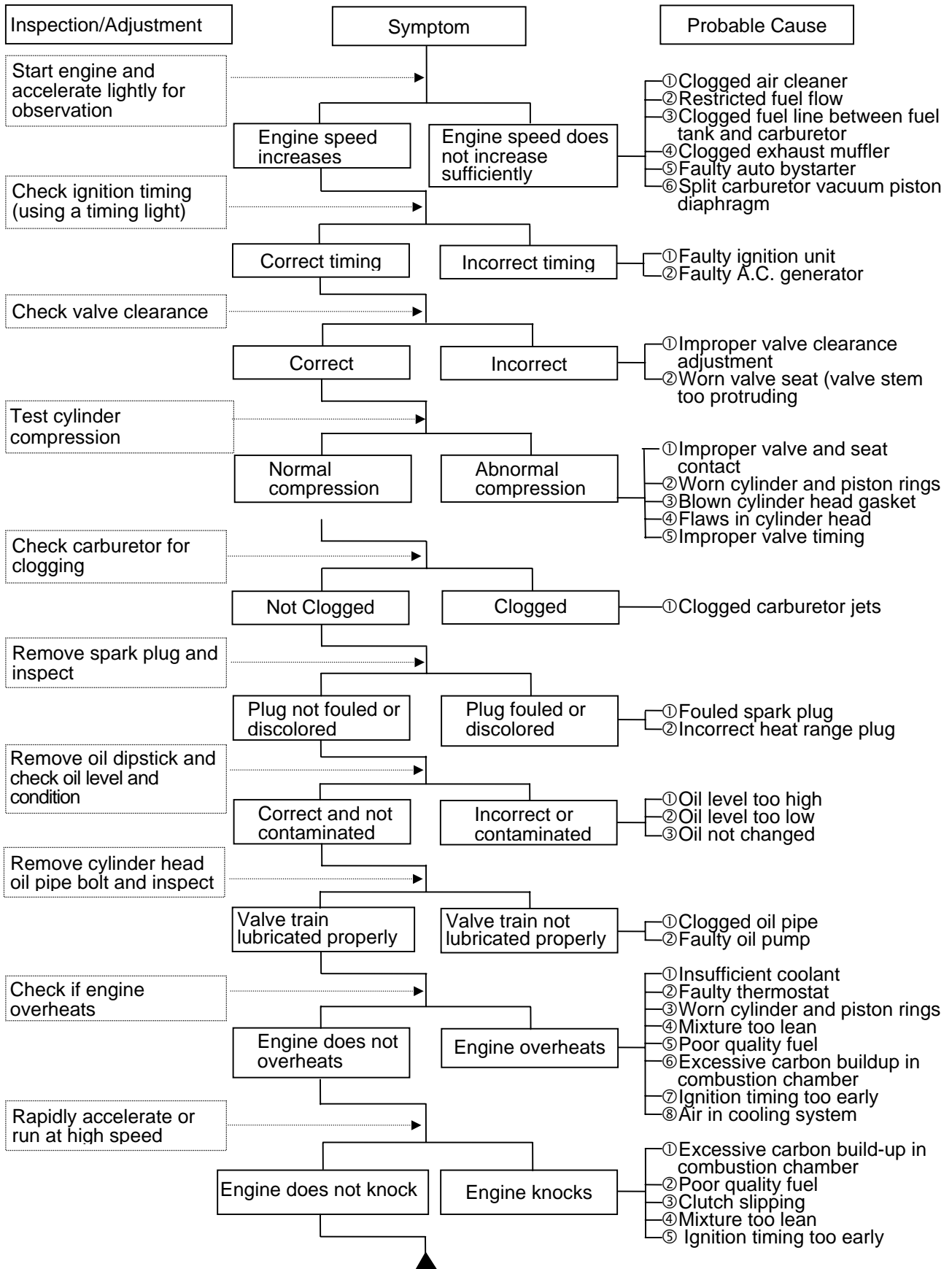
## TROUBLESHOOTING

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



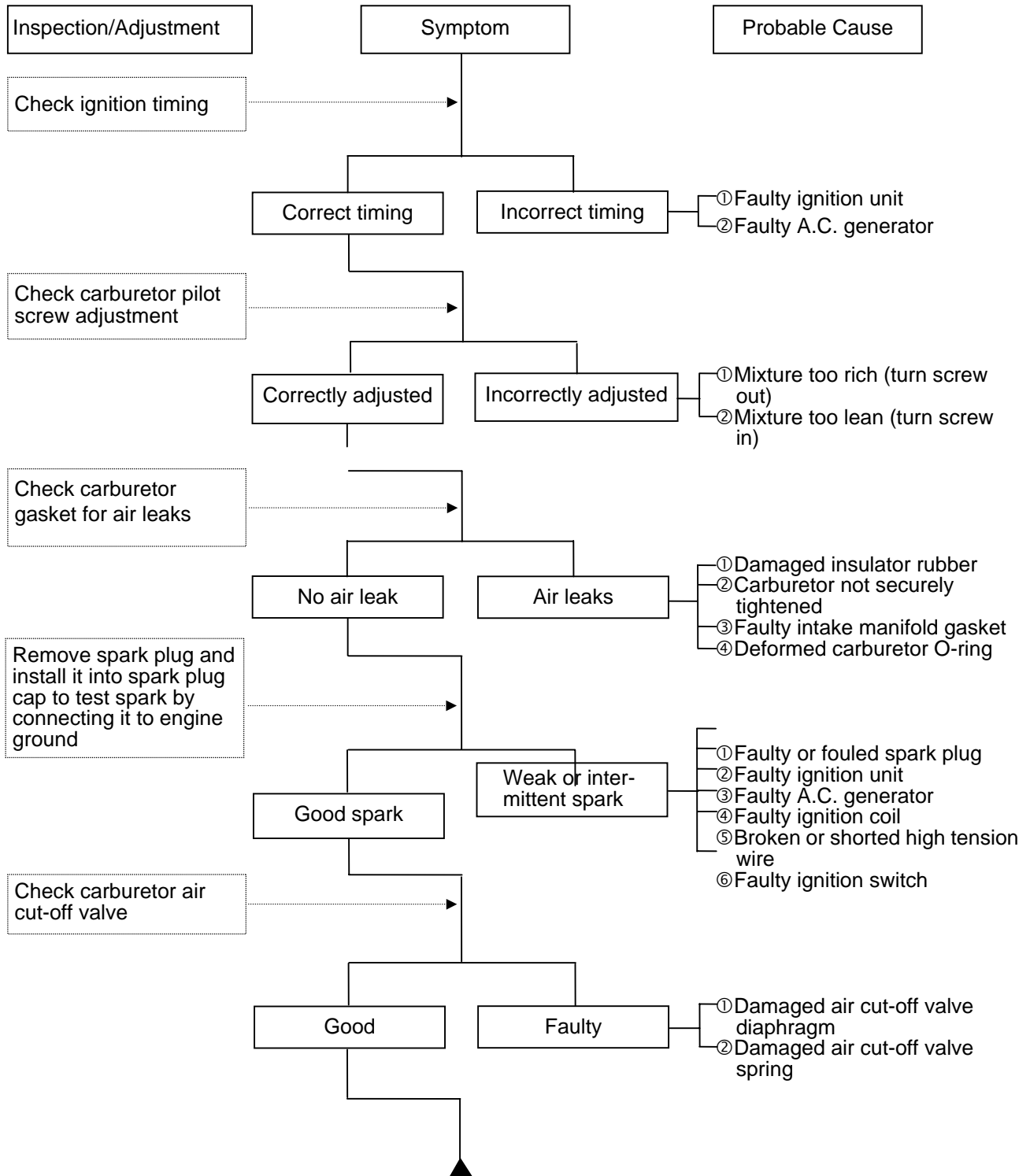
# 1. GENERAL INFORMATION

## ENGINE LACKS POWER



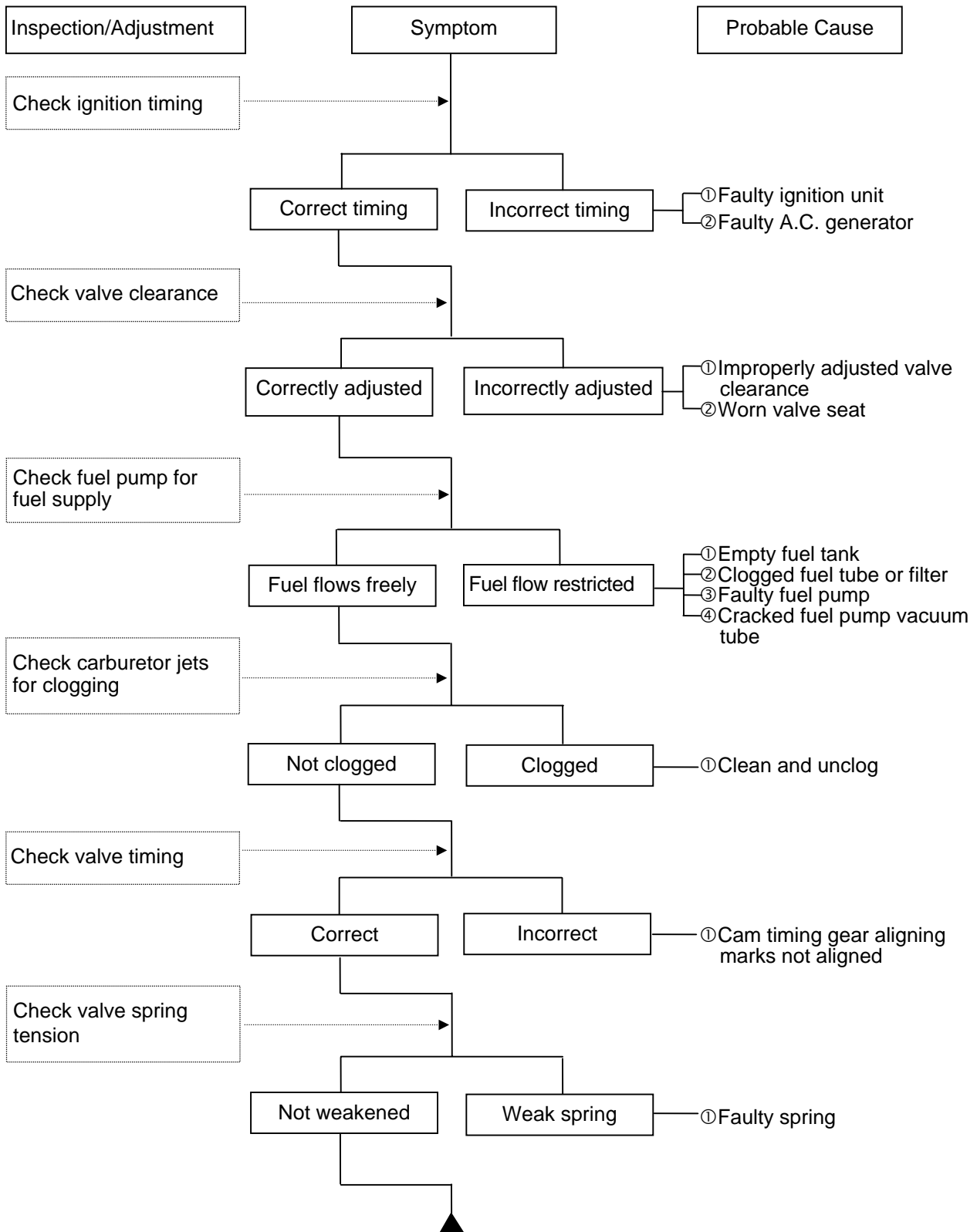
# 1. GENERAL INFORMATION

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



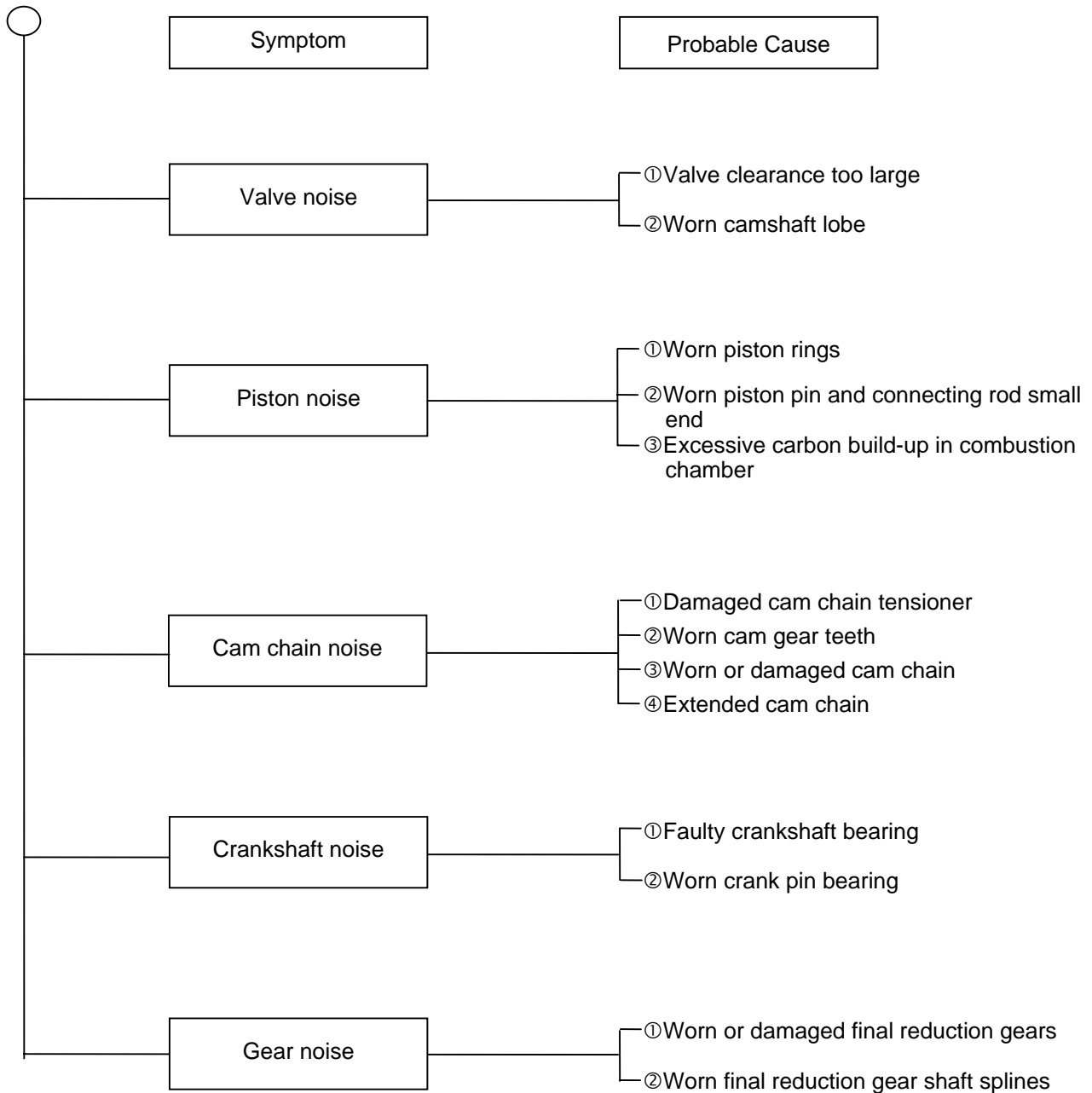
# 1. GENERAL INFORMATION

## POOR PERFORMANCE (AT HIGH SPEED)



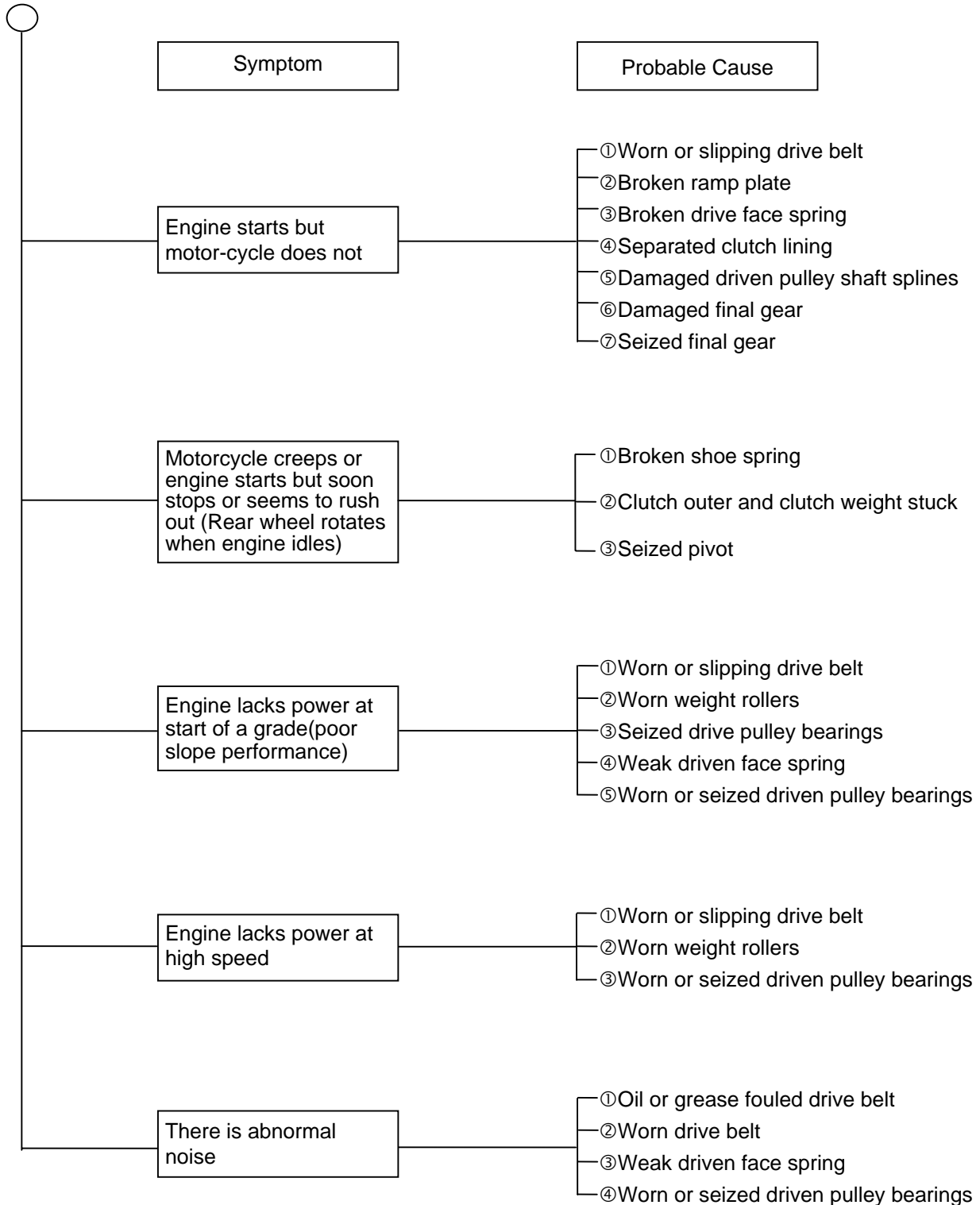
# 1. GENERAL INFORMATION

## ENGINE NOISE



# 1. GENERAL INFORMATION

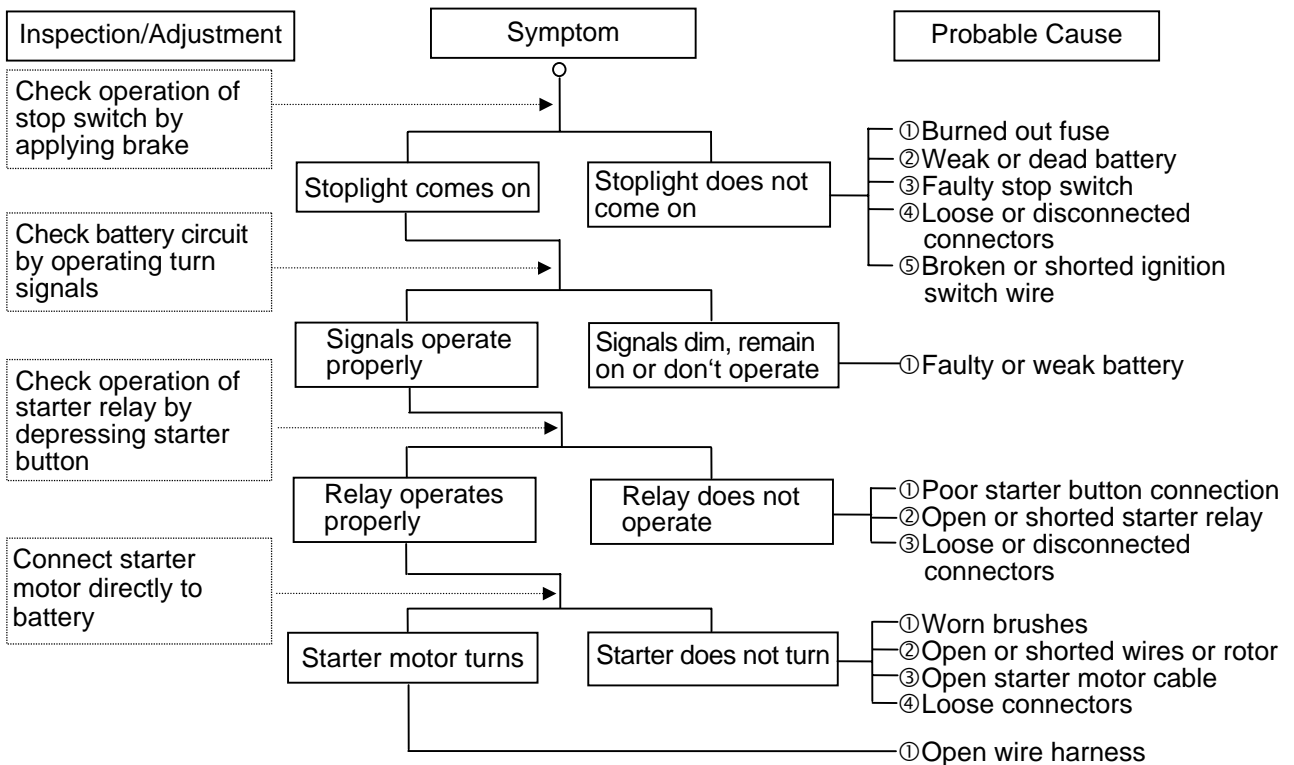
## CLUTCH, DRIVE AND DRIVEN PULLEYS



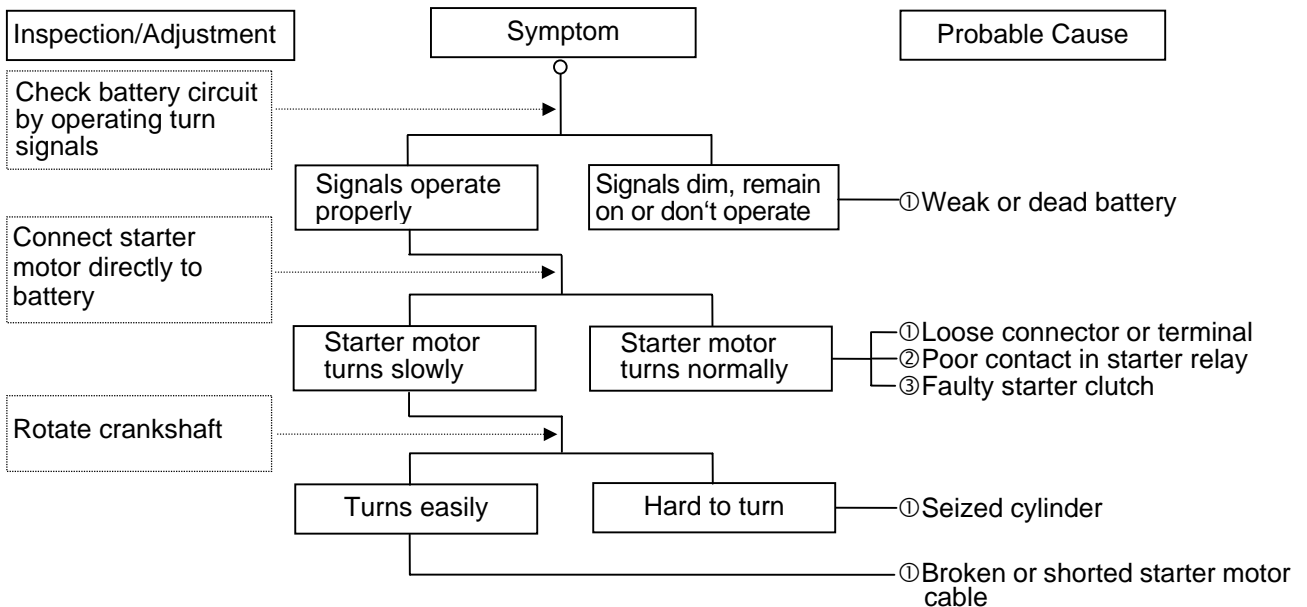
# 1. GENERAL INFORMATION

## STARTER MOTOR

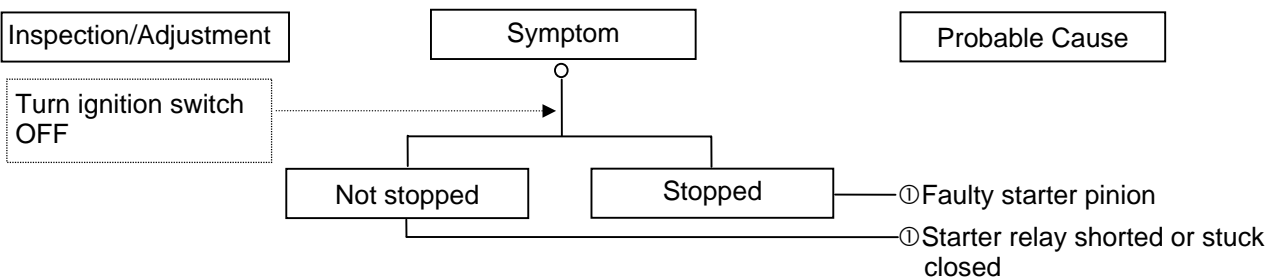
### 1. Starter motor won't turn



### 2. Starter motor turns slowly or idles

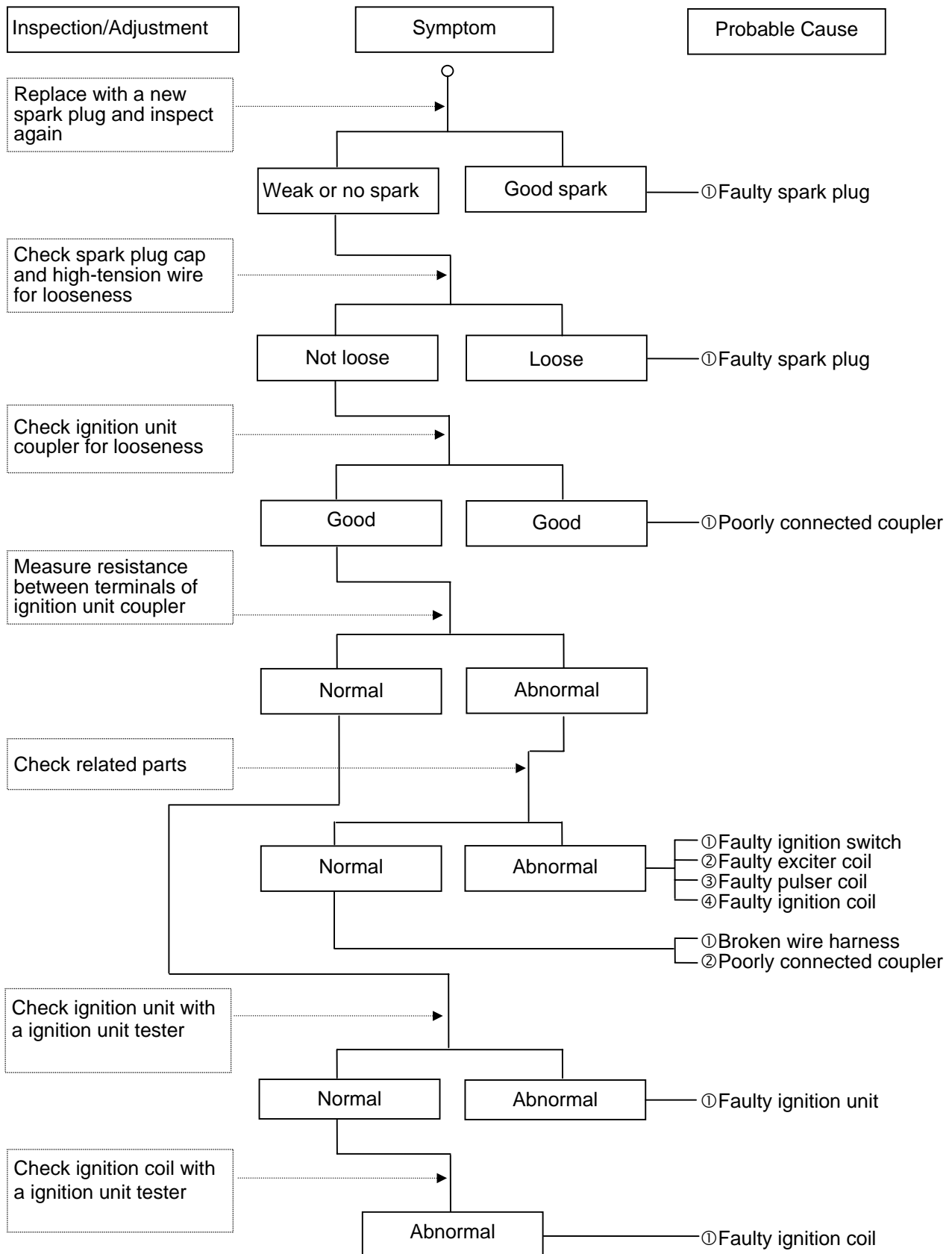


### 3. Starter motor does not stop turning



# 1. GENERAL INFORMATION

## NO SPARK AT SPARK PLUG

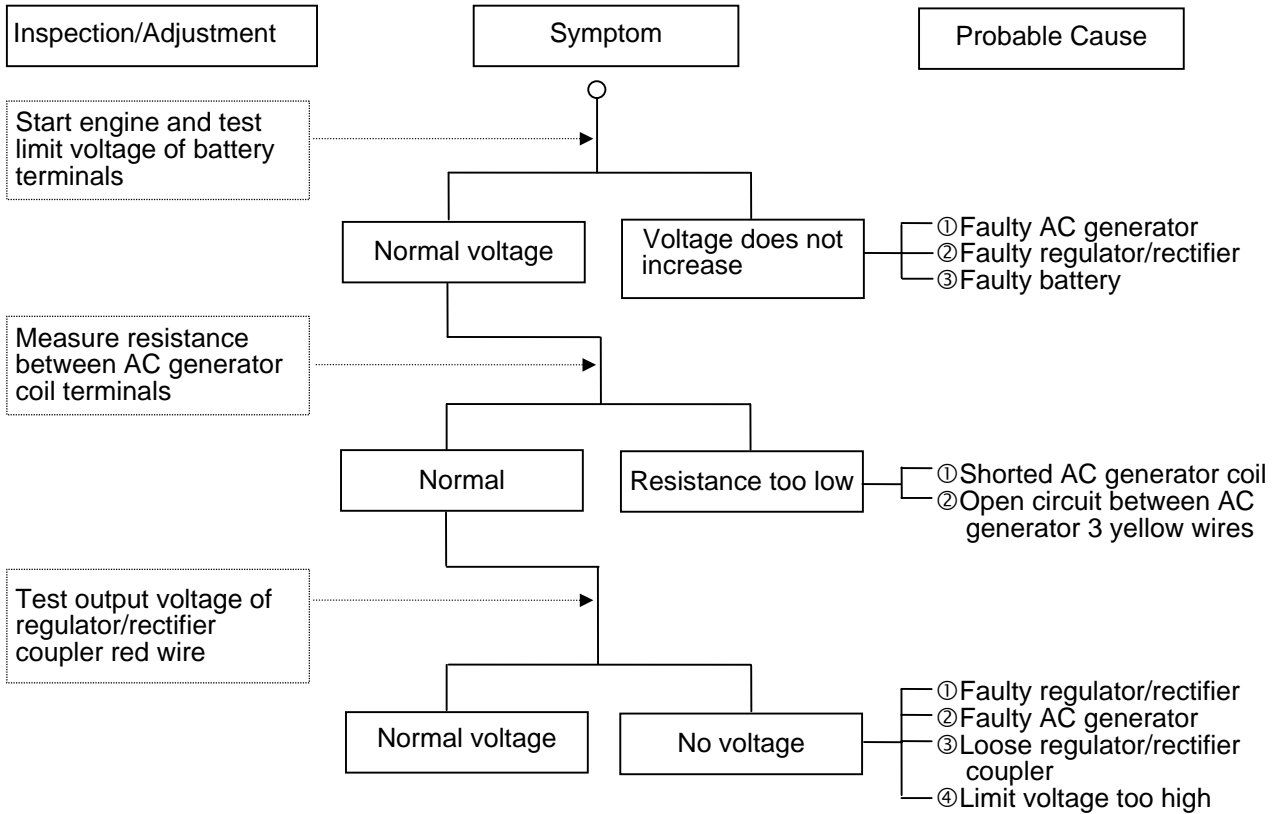




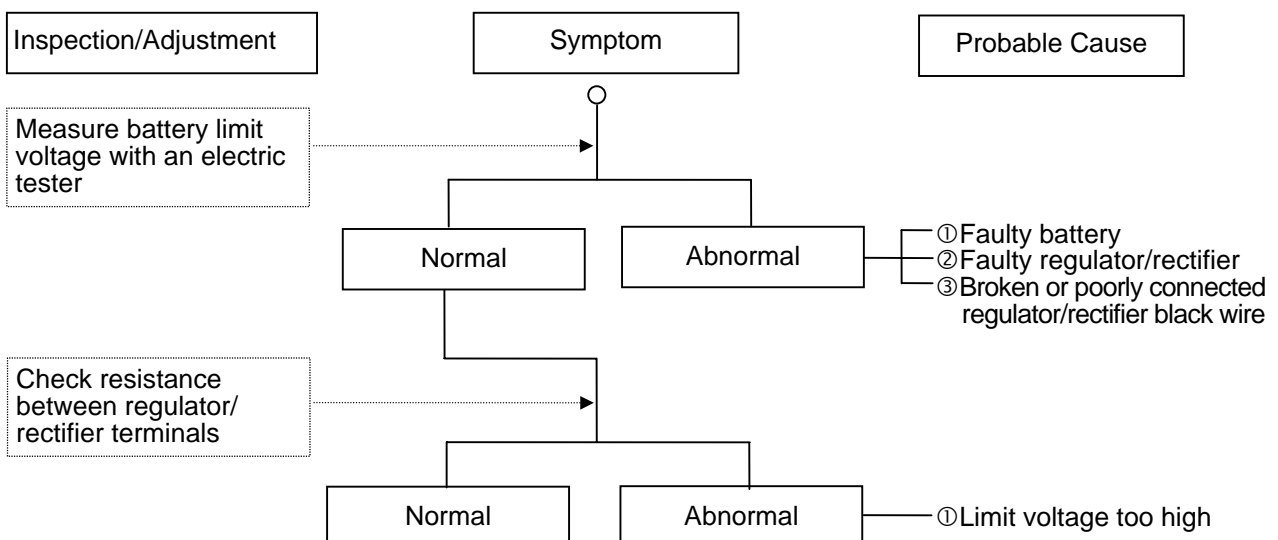
# 1. GENERAL INFORMATION

## POOR CHARGING (BATTERY OVER DISCHARGING OR OVERCHARGING)

### Undercharging



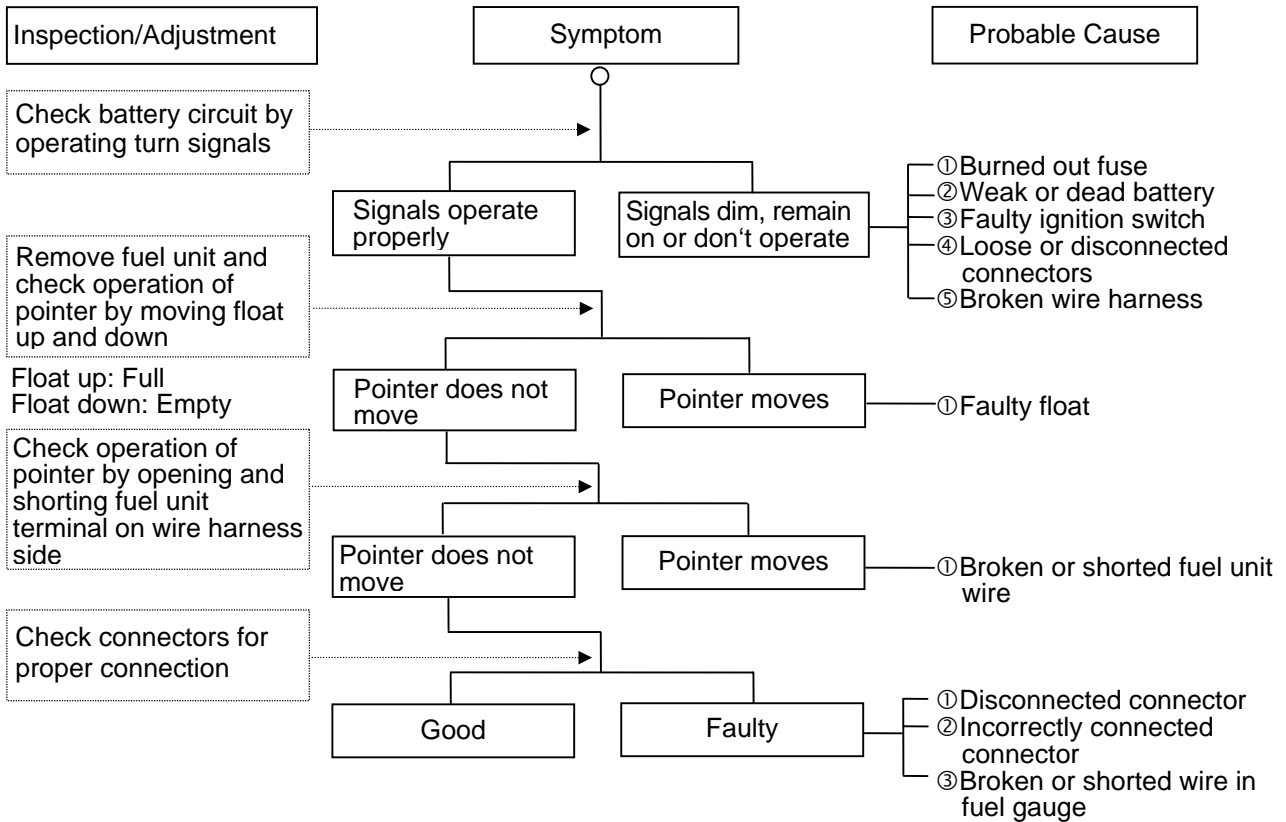
### Overcharging



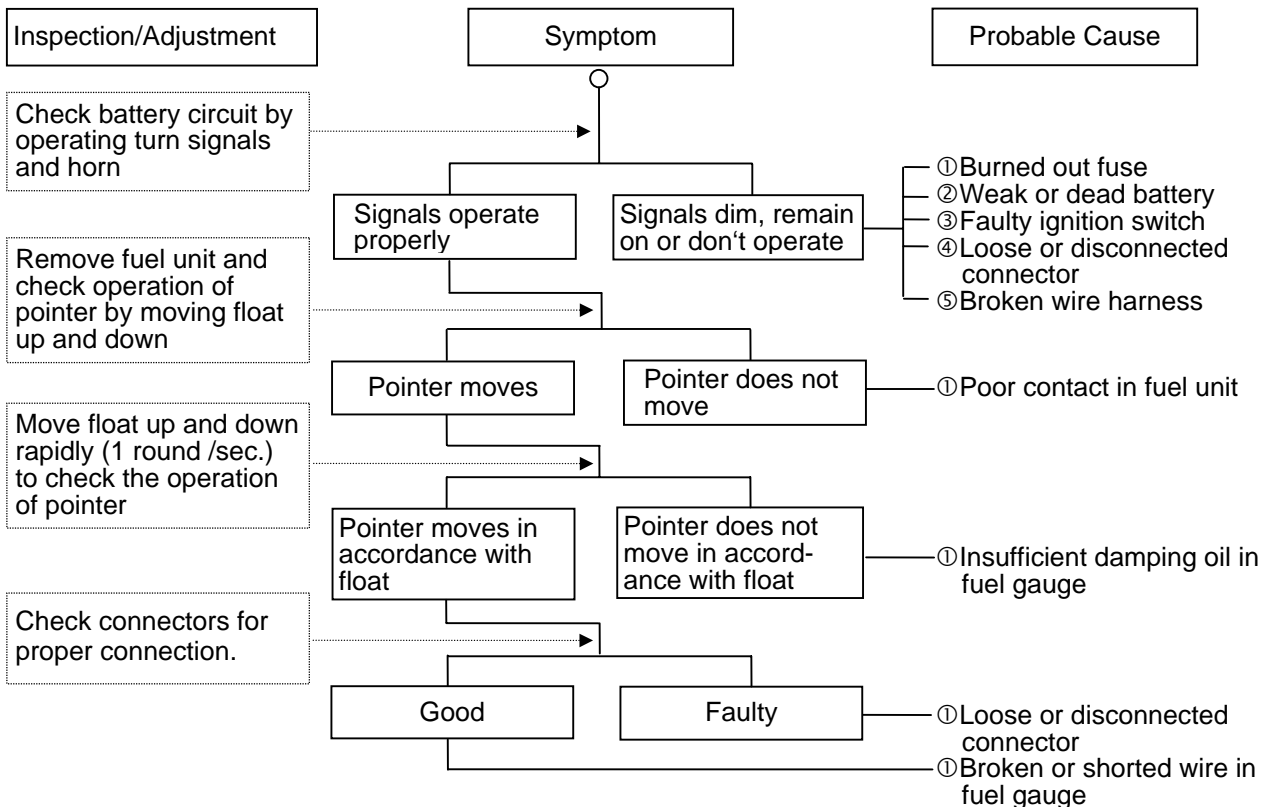
# 1. GENERAL INFORMATION

## FUEL GAUGE

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

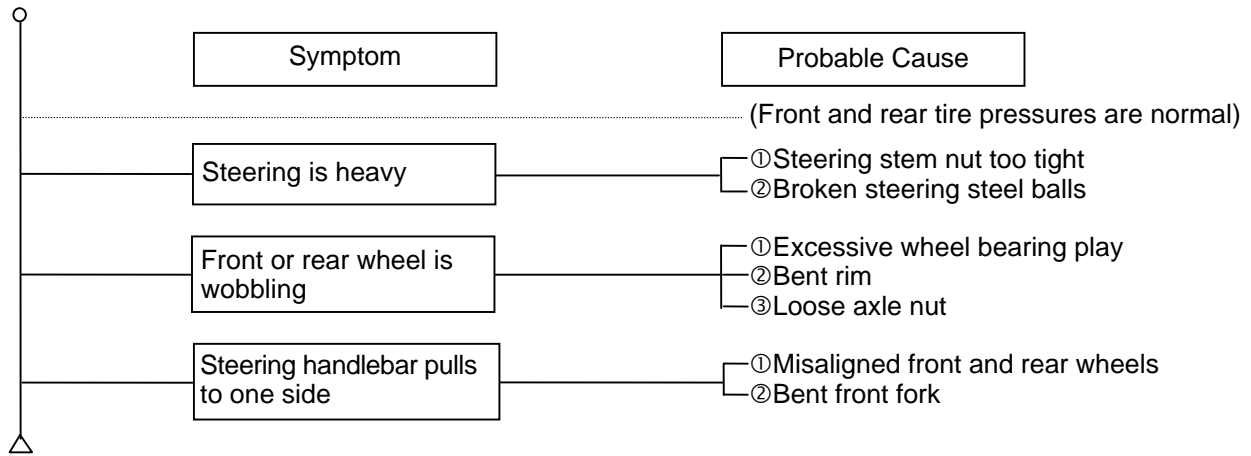


2. Pointer fluctuates or swings (Ignition switch ON)

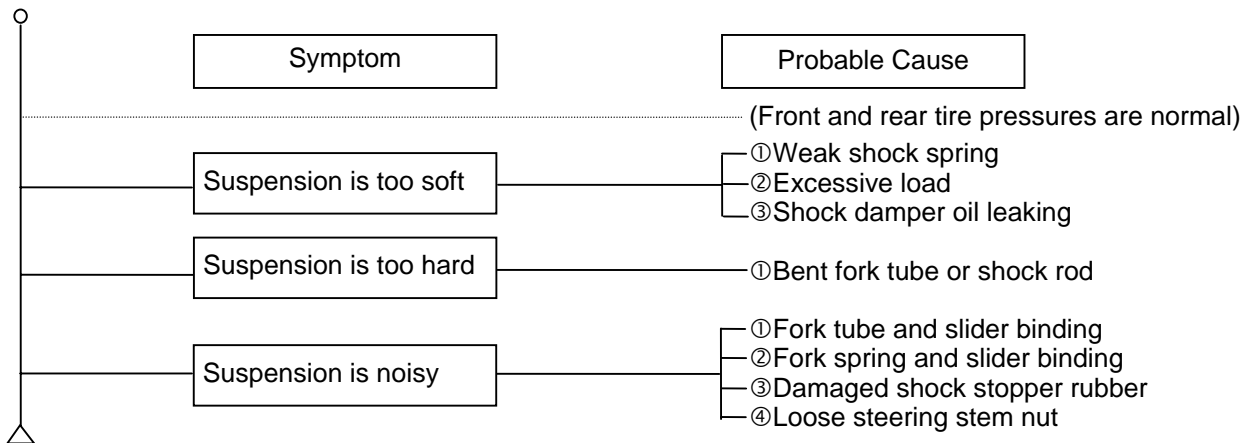


# 1. GENERAL INFORMATION

## STEERING HANDLEBAR DOES NOT TRACK STRAIGHT



## POOR SUSPENSION PERFORMANCE



## POOR BRAKE PERFORMANCE

