

1. GENERAL INFORMATION

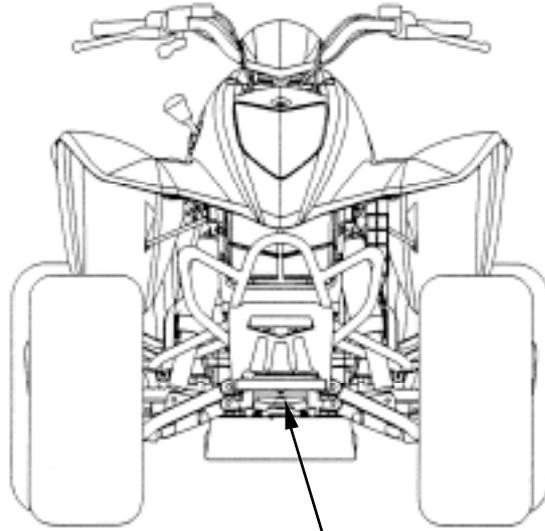
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GENERAL INFORMATION

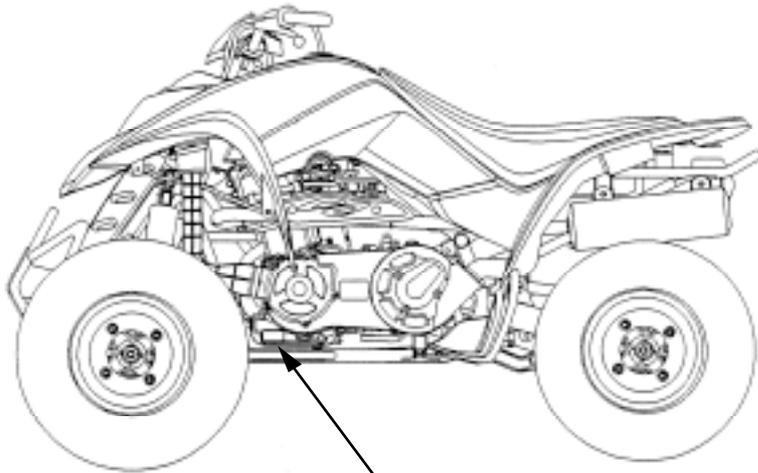
SERIAL NUMBER -----	1- 1
SPECIFICATIONS -----	1- 2
SERVICE PRECAUTIONS-----	1- 3
TORQUE VALUES -----	1-11
SPECIAL TOOLS -----	1-12
LUBRICATION POINTS-----	1-13
CABLE & HARNESS ROUTING -----	1-16
WIRING DIAGRAM -----	1-19
TROUBLESHOOTING -----	1-21

1. GENERAL INFORMATION

SERIAL NUMBER



Location of Frame Serial Number



Location of Engine Serial Number



1. GENERAL INFORMATION

SPECIFICATIONS

Name & Model No.		LA50AA/AB		
Motorcycle Name & Type		Mongoose/KXR		
Overall length (mm)		1700		
Overall width (mm)		1070		
Overall height (mm)		1080		
Wheel base (mm)		1180		
Engine type		O.H.C.		
Displacement (cc)		249		
Fuel Used		92# nonleaded gasoline		
Net weight (kg)	Front wheel	93.1		
	Rear wheel	84.9		
	Total	178		
Gross weight(kg)	Front wheel	100		
	Rear wheel	91		
	Total	191		
Tires	Front wheel	21*7-10		
	Rear wheel	20*11-9		
Ground clearance (mm)		130		
Performance	Breaking distance (m)(30KPH)	29.27 below		
	Min. turning radius (m)	2.865		
Engine	Starting system		Starting motor	
	Type		Gasoline, 4-stroke	
	Cylinder arrangement		Single cylinder	
	Combustion chamber type		Semi-sphere	
	Valve arrangement		O.H.C., chain drive	
	Bore x stroke (mm)		72.7 x 60	
	Compression ratio		10.3:1	
	Compression pressure (kg/cm ₂)		15.0	
	Max. output (ps/rpm)		17/7000	
	Max. torque (kg m/rpm)		2.0/5500	
	Port timing	Intake (1mm)	Open	8.1° BTDC
			Close	41° ABDC
		Exhaust (1mm)	Open	37° BBDC
			Close	7.9° ATDC
	Valve clearance (cold) (mm)	Intake	0.1	
		Exhaust	0.1	
	Idle speed (rpm)		1500rpm	
	Lubrication System	Lubrication type		Forced pressure & Wet sump
		Oil pump type		Inner/outer rotor type
		Oil filter type		Full-flow filtration
Oil capacity		1.6 liter		

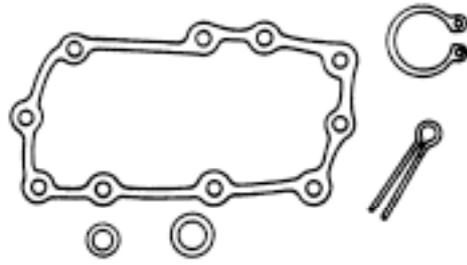
	Oil exchanging capacity	1.4 liter
	Cooling Type	Water cooling

Fuel System	Air cleaner type & No		Sponge	
	Fuel capacity		13 liters	
	Carburetor	Type	PD	
		Float lever	14.8mm	
		Venturi dia.(mm)	□22	
Throttle type		PISTON		
Electrical	Ignition System	Type	CDI	
		Ignition timing	5°BTDC/2000rpm	
		Contact breaker	Non-contact point type	
	Spark plug		DPR7EA-9	
	Spark plug gap		0.6_ 0.7mm	
Battery Capacity		12V12AH		
Power Drive System	Clutch	Type	CVT	
		Transmission Gear	Type	Helical gear/spur gear
	Operation		Automatic centrifugal Type	
	Gear Reduction	Type	Chain drive	
		Reduction ratio	1st	24.7
			2nd	9.33
Reverse ratio		47.4		
Moving Device	FR/RR tire rolling circumference(mm)		1675/1596	
	Tire pressure (kg/cm ₂)	Front	0.28	
		Rear	0.28	
	Turning angle	Left	40°	
Right		40°		
Brake system type		Rear	Disk brake	
		Front	Disk brake	
Damping Device	Suspension type	Front	Double wishbone	
		Rear	Link suspension	
Frame type		Steel tube frame		

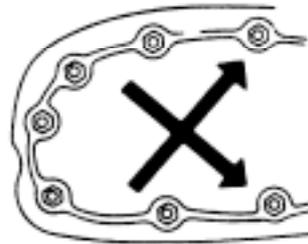
1. GENERAL INFORMATION

SERVICE PRECAUTIONS

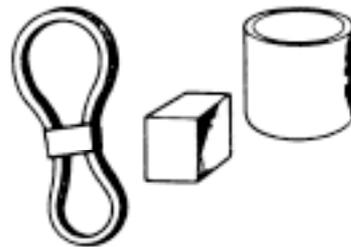
- Make sure to install new gaskets, O-rings, circlips, cotter pins, etc. when reassembling.



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



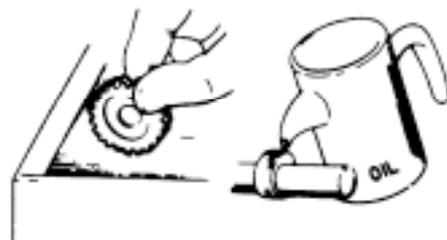
- Use genuine parts and lubricants.



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

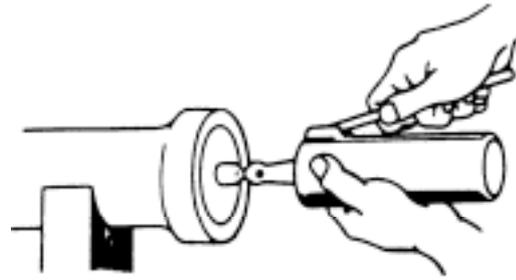


- After disassembly, clean removed parts. Lubricate sliding surfaces with engine oil before reassembly.

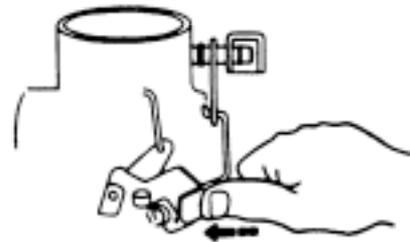


1. GENERAL INFORMATION

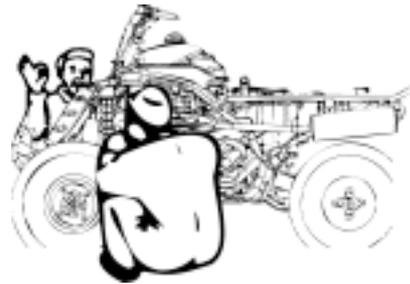
- Apply or add designated greases and lubricants to the specified lubrication points.



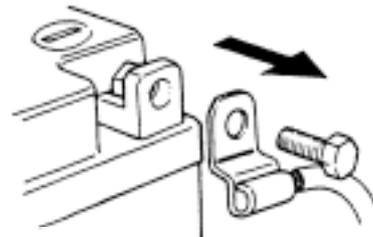
- After reassembly, check all parts for proper tightening and operation.



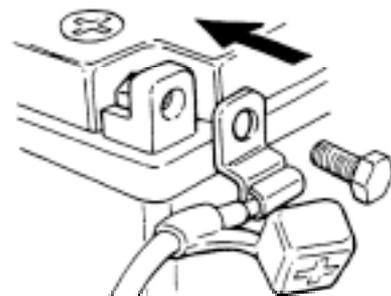
- When two persons work together, pay attention to the mutual working safety.



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

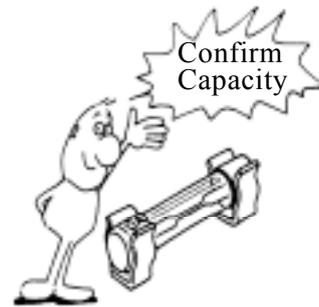


- After operation, check all connecting points, fasteners, and lines for proper connection and installation.
- When connecting the battery, the positive (+) terminal must be connected first.
- After connection, apply grease to the battery terminals.
- Terminal caps shall be installed securely.



1. GENERAL INFORMATION

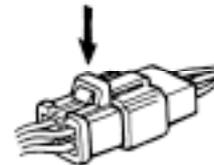
- If the fuse is burned out, find the cause and repair it. Replace it with a new one according to the specified capacity.



- After operation, terminal caps shall be installed securely.



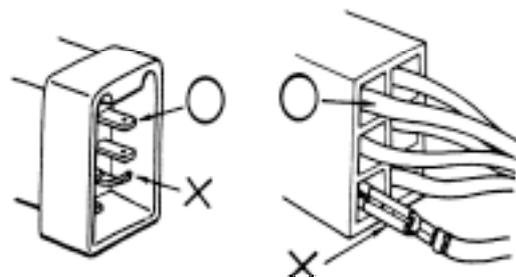
- When taking out the connector, the lock on the connector shall be released before operation.



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

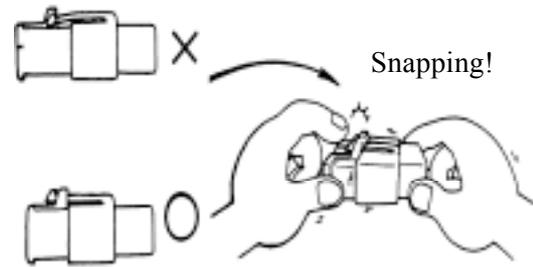


- Check if any connector terminal is bending, protruding or loose.

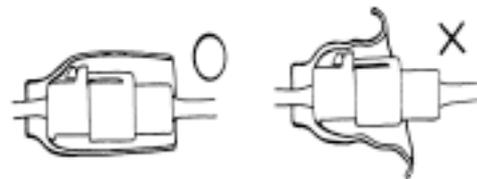


1. GENERAL INFORMATION

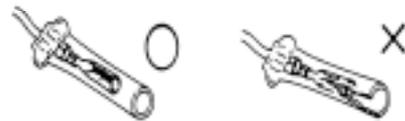
- The connector shall be inserted completely.
- If the double connector has a lock, lock it at the correct position.
- Check if there is any loose wire.



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



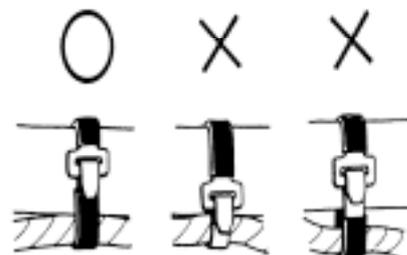
- Check the double connector cover for proper coverage and installation.



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

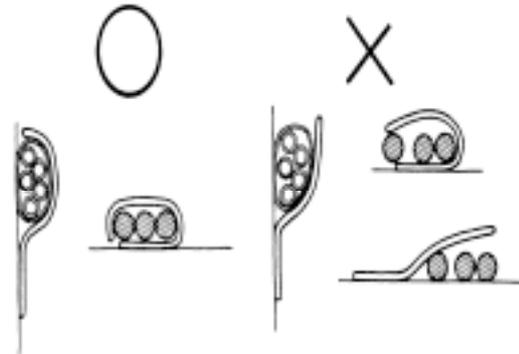


- Secure wire harnesses to the frame with their respective wire bands at the designated locations. Tighten the bands so that only the insulated surfaces contact the wire harnesses.



1. GENERAL INFORMATION

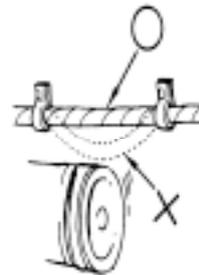
- After clamping, check each wire to make sure it is secure.



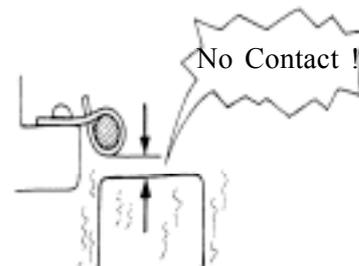
- Do not squeeze wires against the weld or its clamp.



- 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.

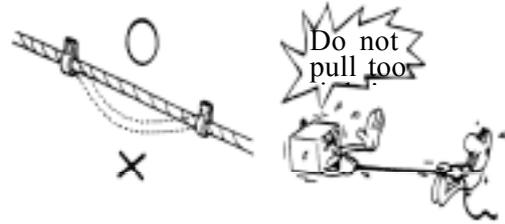


- Route wire harnesses to avoid sharp edges or corners. Avoid the projected ends of bolts and screws.
- Route wire harnesses passing through the side of bolts and screws. Avoid the projected ends of bolts and screws.

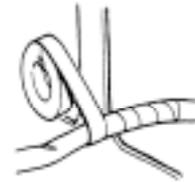


1. GENERAL INFORMATION

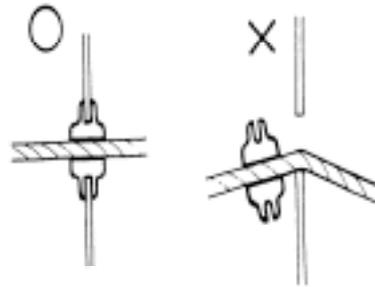
- Route harnesses so they are neither pulled tight nor have excessive slack.



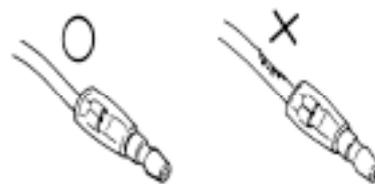
- Protect wires and harnesses with electrical tape or tube if they contact a sharp edge or corner.



- 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.

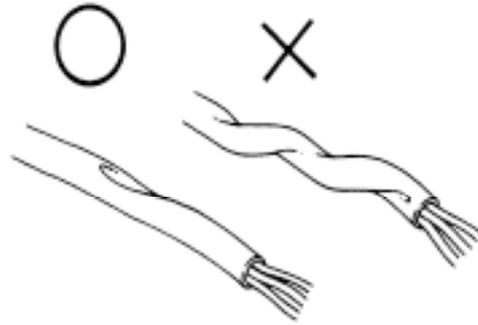


- When installing other parts, do not press or squeeze the wires.



1. GENERAL INFORMATION

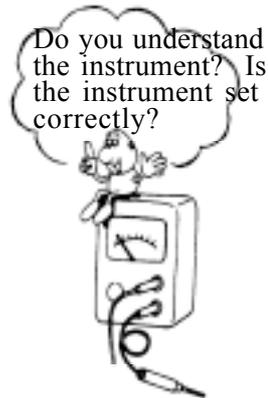
- After routing, check that the wire harnesses are not twisted or kinked.



- 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.



1. GENERAL INFORMATION

■ 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 (kgf-m)	Item	Torque (kgf-m)
5mm bolt and nut	0.45_ 0.6	4mm screw	0.2_ 0.4
6mm bolt and nut	0.8_ 1.2	5mm screw	0.35_ 0.5
8mm bolt and nut	1.8_ 2.5	6mm screw, SH bolt	0.7_ 1.1
10mm bolt and nut	3.0_ 4.0	6mm flange bolt and nut	1.0_ 1.4
12mm bolt and nut	5.0_ 6.0	8mm flange bolt and nut	2.4_ 3.0
14mm bolt and nut	6.0_ 8.0	10mm flange bolt and nut	3.5_ 4.5

Torque specifications listed below are for important fasteners.

ENGINE

Item	Q'ty	Thread dia.(mm)	Torque (kgf-m)	Remarks
Stud bolt	4	8	0.7_ 1.1	
Oil filter screen cap	1	30	1.0_ 2.0	
Seat ball stopper bolt	1	14	4.5_ 5.0	
L cover	10	6	1.0_ 1.4	
Cam shaft holder	4	8	2.3_ 2.7	Apply oil
Tappet ADJ nut	2	5	0.7_ 1.1	Apply oil
Pivot tensioner bolt	1	8	0.8_ 1.2	
Lifter tensioner bolt	2	6	1.0_ 1.4	
Lifter tensioner cap	1	6	0.35_ 0.5	
Mission case bolt	9	8	2.4_ 3.0	
Mission fill bolt	1	12	2.0_ 3.0	
Driver face nut	1	14	9.0_ 10.0	Apply oil
Clutch outer nut	1	12	5.0_ 6.0	
Drive plate nut	1	28	5.0_ 6.0	
Oneway clutch bolt	3	8	1.8_ 2.2	Apply thread lock
ACG flywheel nut	1	14	5.5_ 6.5	
Spark plug	1	12	1.5_ 2.0	
Water pump impeller	1	7	1.0_ 1.4	
Drain plug	1	12	2.0_ 3.0	
Oil pump screw	1	3	0.1_ 0.3	
Head CYL stud bolt (IN pipe)	2	6	0.7_ 1.1	
Head CYL stud bolt (EX pipe)	2	8	0.7_ 1.1	
A.C.G Startor	3	5	0.8_ 1.0	

1. GENERAL INFORMATION

FRAME

Item	Q'ty	Thread dia.(mm)	Torque (kgf-m)	Remarks
Steering stem nut	1	14	6.0_ 8.0	
Front Swing arm nut	8	10	4.0_ 5.0	
Front wheel nut	8	12	5.0_ 6.0	
Rear wheel nut	8	12	5.0_ 6.0	
Front wheel hub nut	2	14	6.0_ 8.0	
Rear wheel hub nut	2	16	6.0_ 8.0	
Front shock absorber upper mount bolt	2	10	3.5_ 4.5	
Front shock absorber lower mount bolt	2	10	3.5_ 4.5	
Rear shock absorber upper mount bolt	1	10	3.5_ 4.5	
Rear shock absorber lower mount bolt	1	10	3.5_ 4.5	
Rear swing arm axle	1	14	6.0_ 8.0	
Rear hub nut	2	10	3.5_ 4.5	
Rear wheel shaft nut	2	40	11.0_ 13.0	
Rear engine bracket upper bolt	1	10	3.5_ 4.5	
Rear engine bracket lower bolt	1	10	3.5_ 4.5	
Engine hanger bracket bolt	1	10	3.5_ 4.5	
Exhaust muffler lock bolt (frame)	2	8	3.2_ 3.8	
Exhaust muffler lock nut (engine)	2	8	1.8_ 2.2	
Rod-end nut	4	8	2.5_ 3.5	

SPECIAL TOOLS

Tool Name	Tool No.	Remarks Ref. Page
Flywheel puller	E003	
Valve adjuster	E012	
Valve spring compressor	E040	
Oil seal and bearing install	E014	
Universal holder	E017	
Flywheel holder	E021	
Clutch spring compressor	E034	
Bearing puller	E037	
Nut wrench	F010	

1. GENERAL INFORMATION

LUBRICATION POINTS

ENGINE

Lubrication Points	Lubricant
Valve guide/valve stem movable part Cam lobes Valve rocker arm friction surface Cam 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 right side oil seal Crankshaft one-way clutch movable part Oil pump drive chain Balance gear A.C. generator Starter one-way clutch Bearing movable part O-ring face Oil seal lip	<ul style="list-style-type: none"> •Genuine KYMCO Engine Oil (SAE15W-40) •API SG Engine Oil
Transmission gear and movable parts	Gear oil: SAE90#

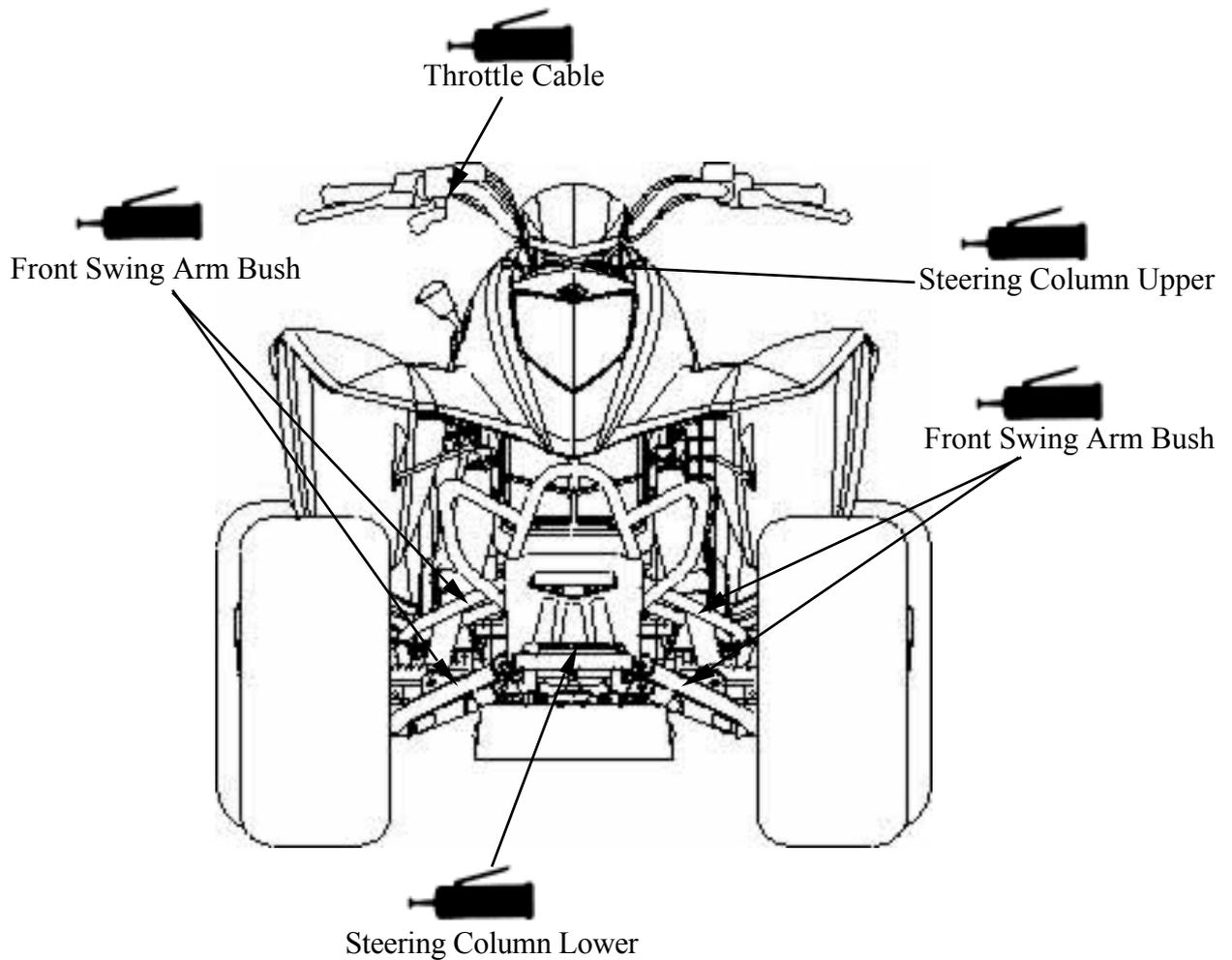
1. GENERAL INFORMATION

FRAME

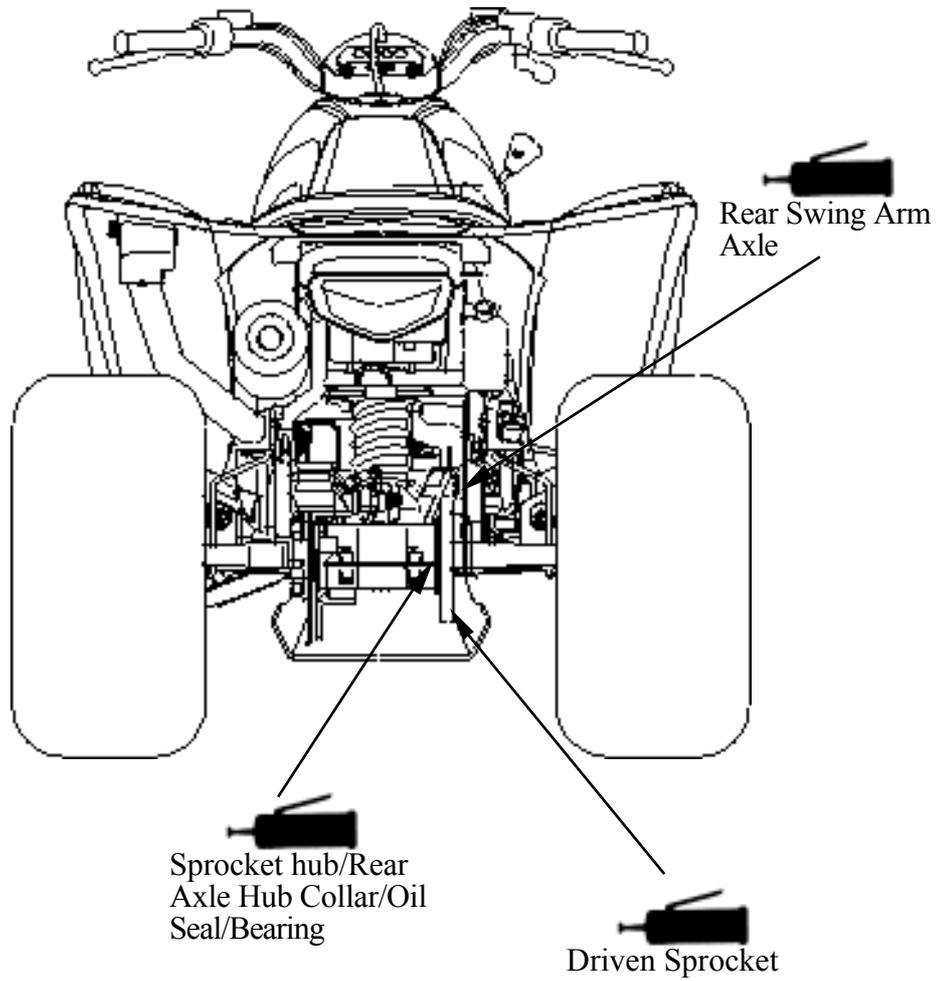
The following is the lubrication points for the frame.

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 ATV.

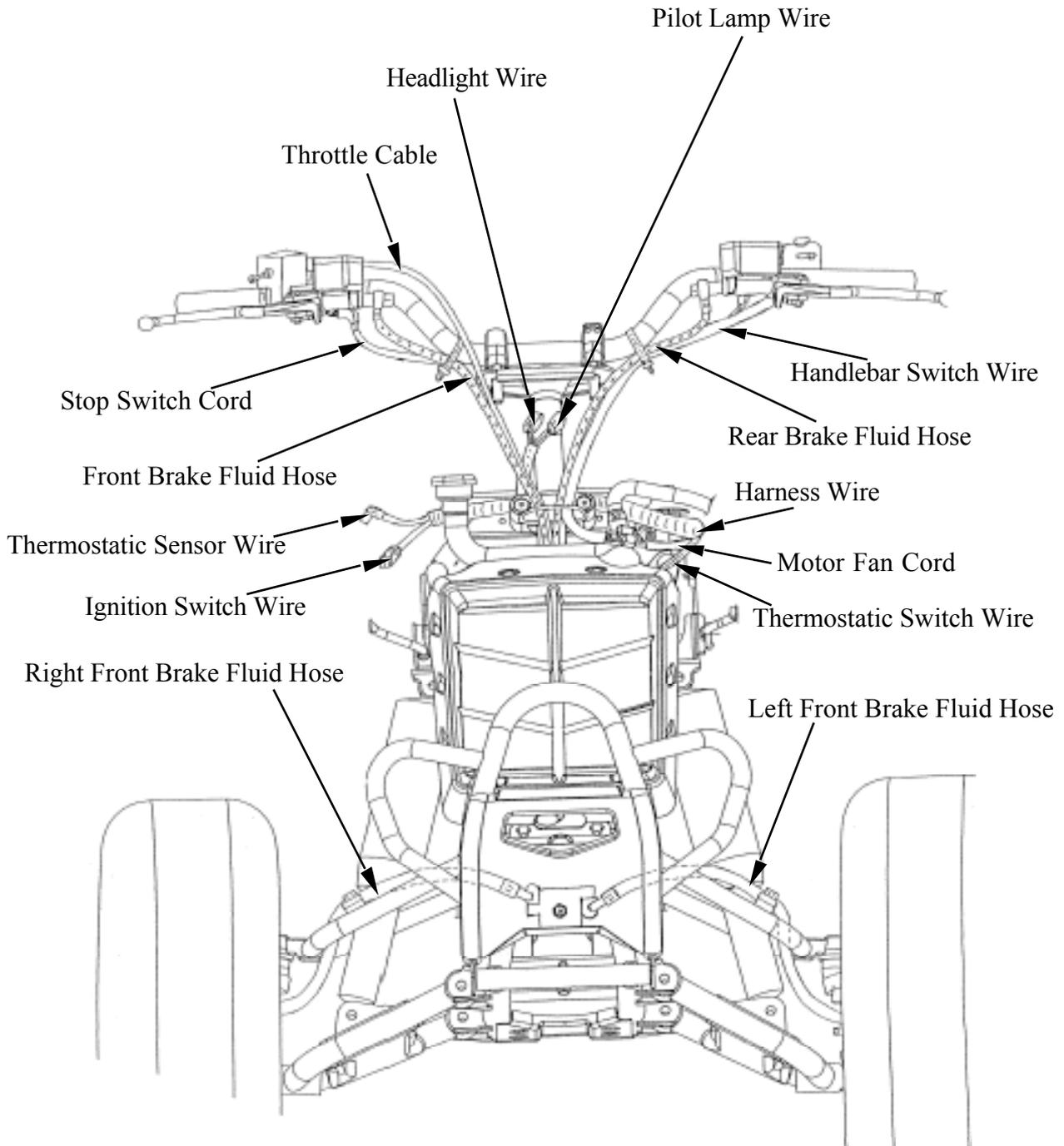


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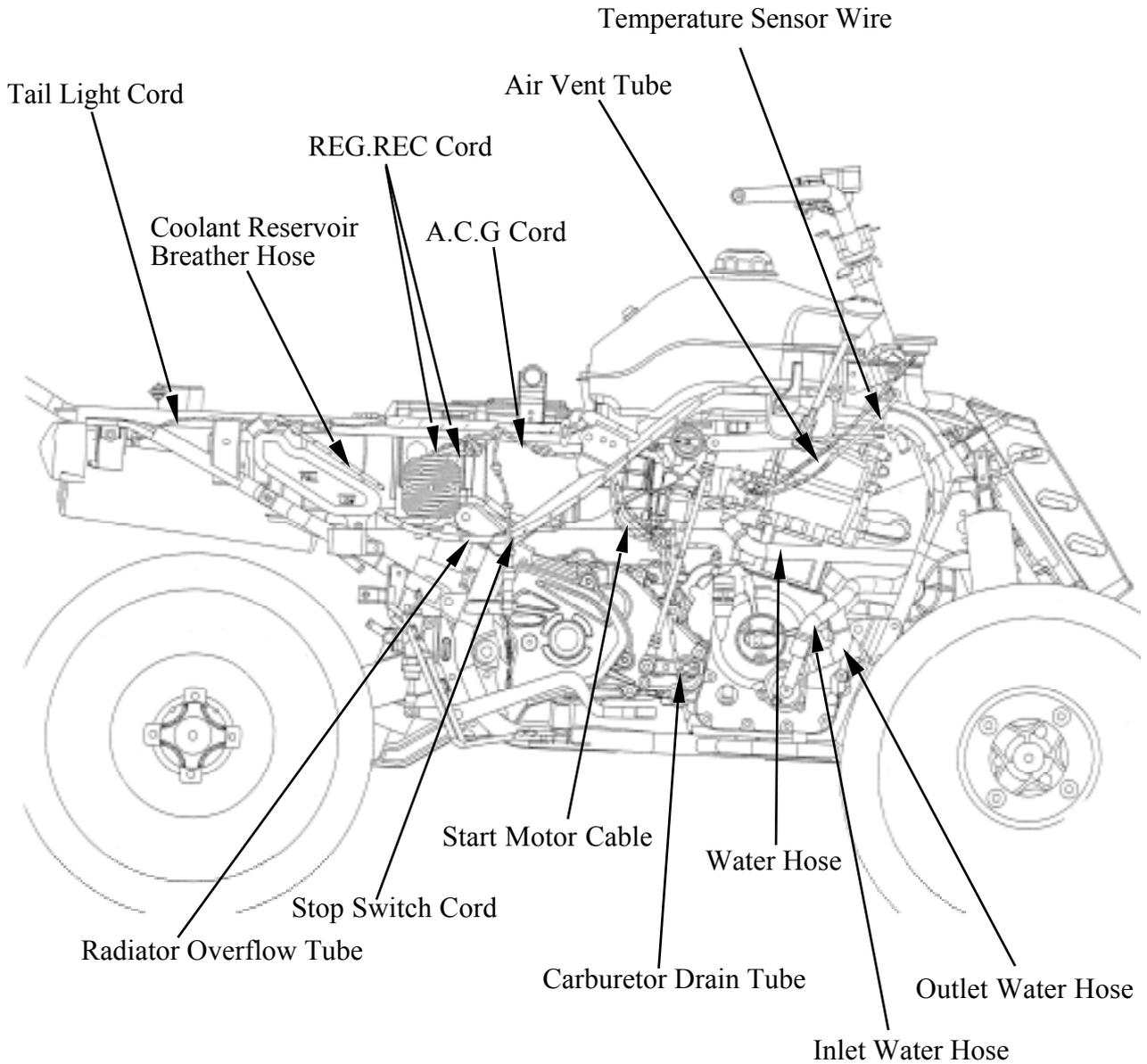


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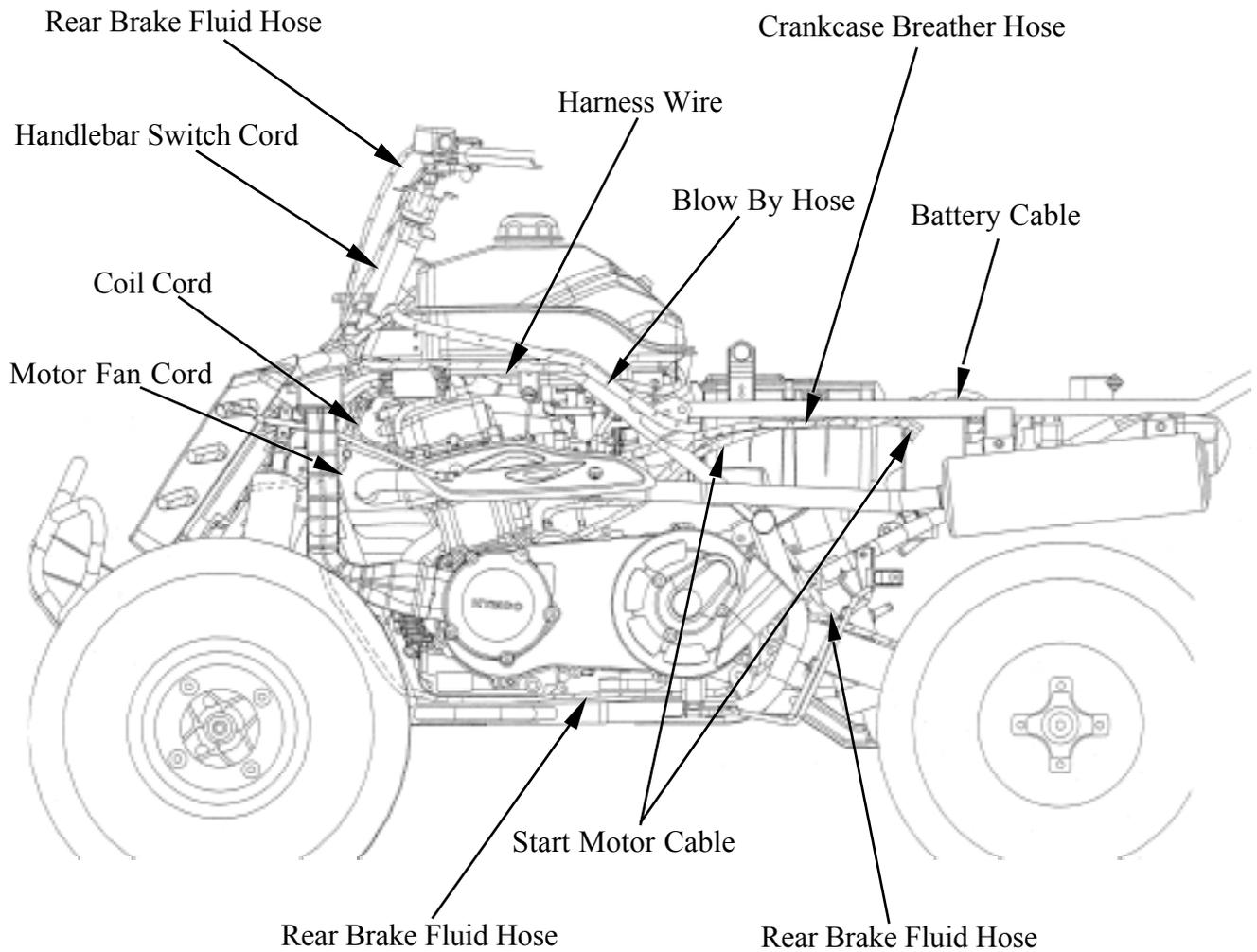
CABLE & HARNESS ROUTING



1. GENERAL INFORMATION



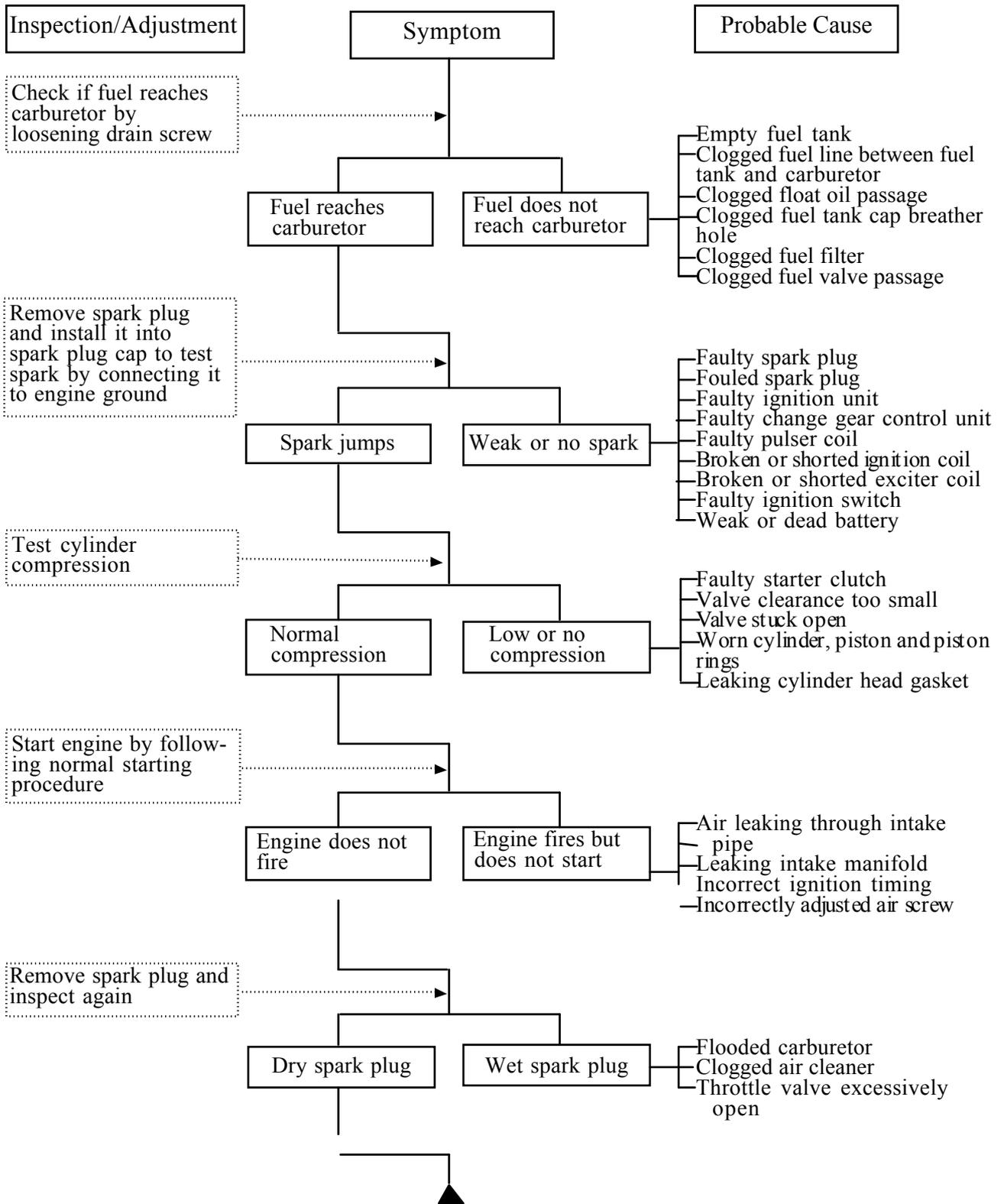
1. GENERAL INFORMATION



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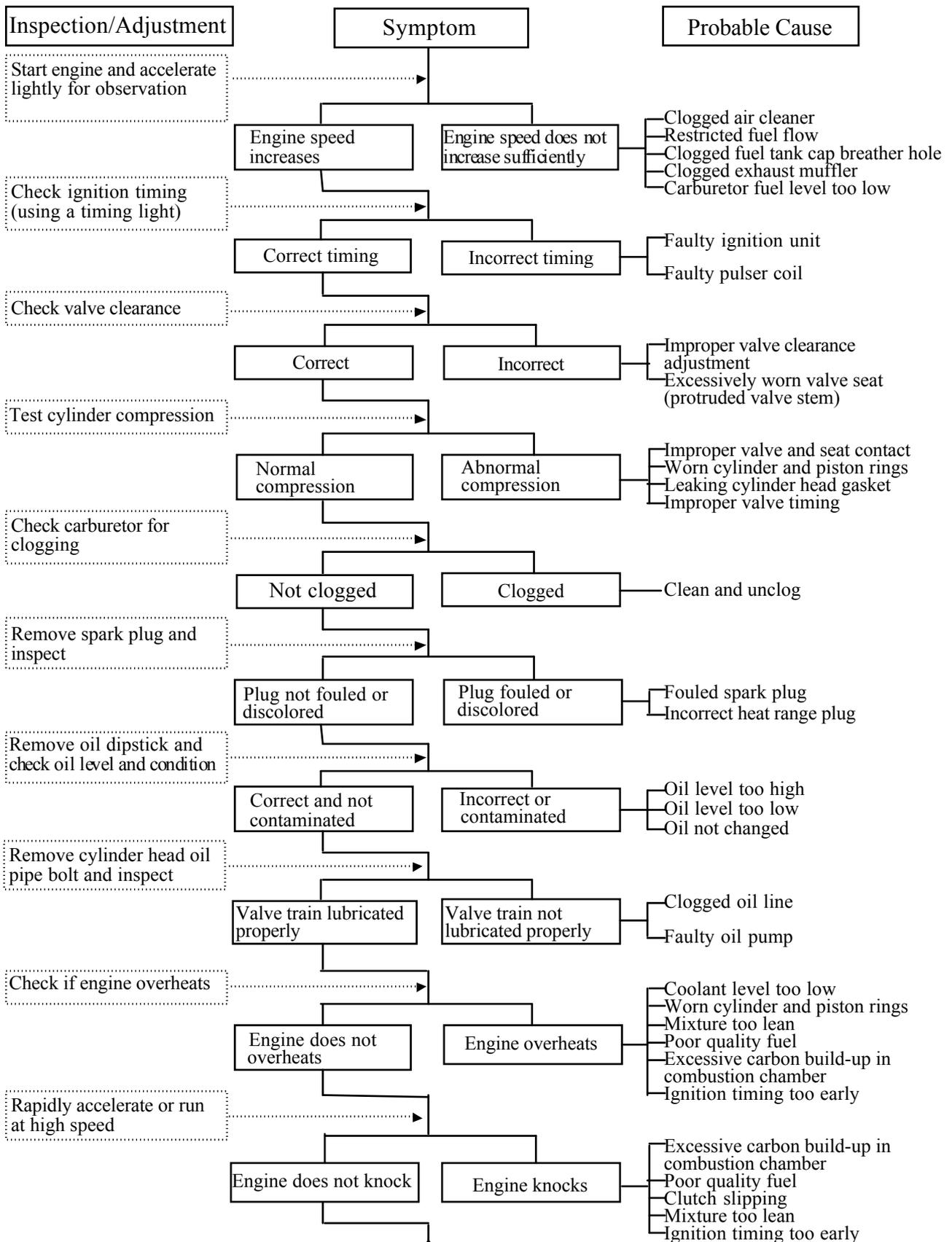
TROUBLESHOOTING

ENGINE WILL NOT START OR IS HARD TO START



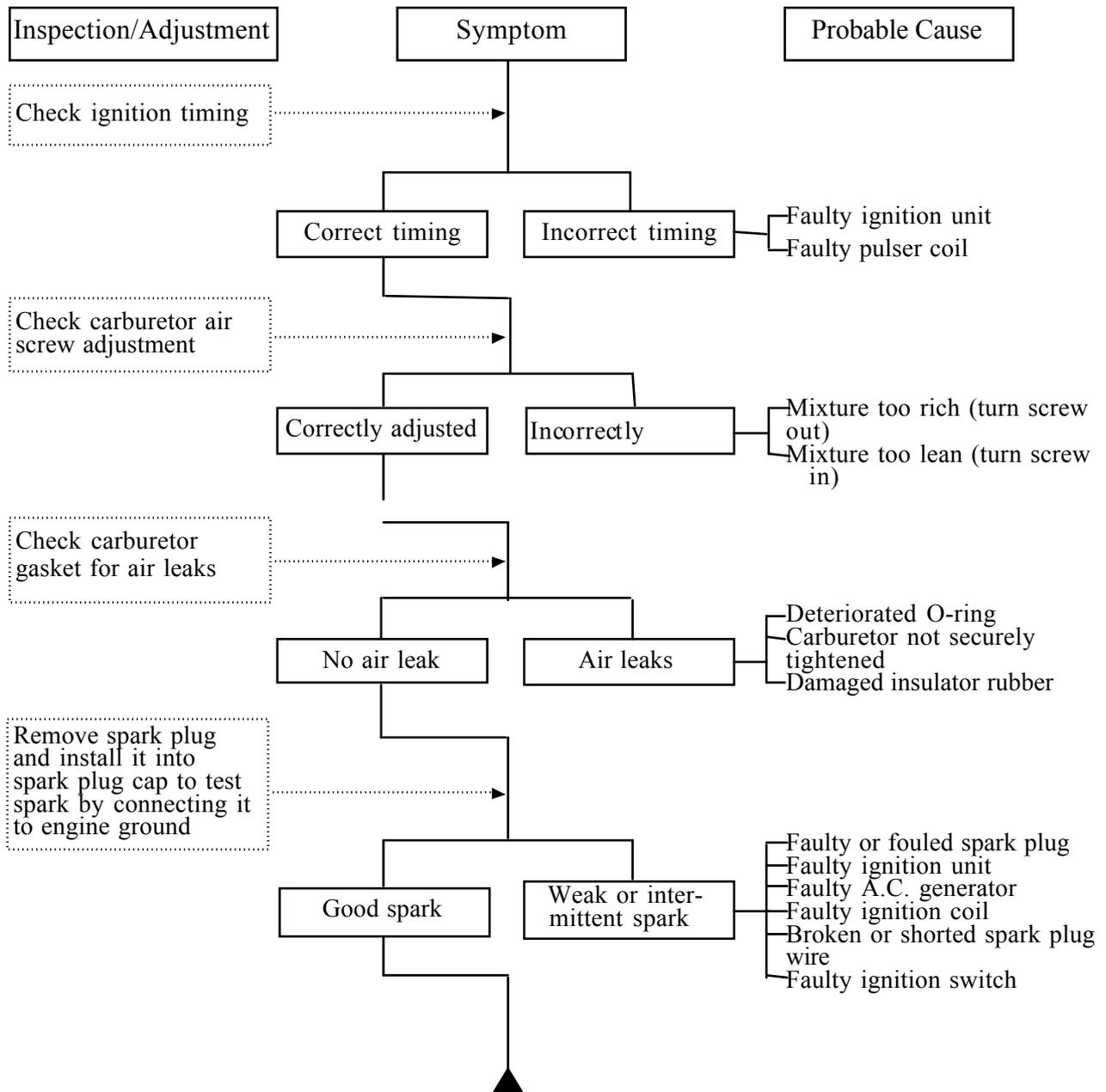
1. GENERAL INFORMATION

ENGINE LACKS POWER



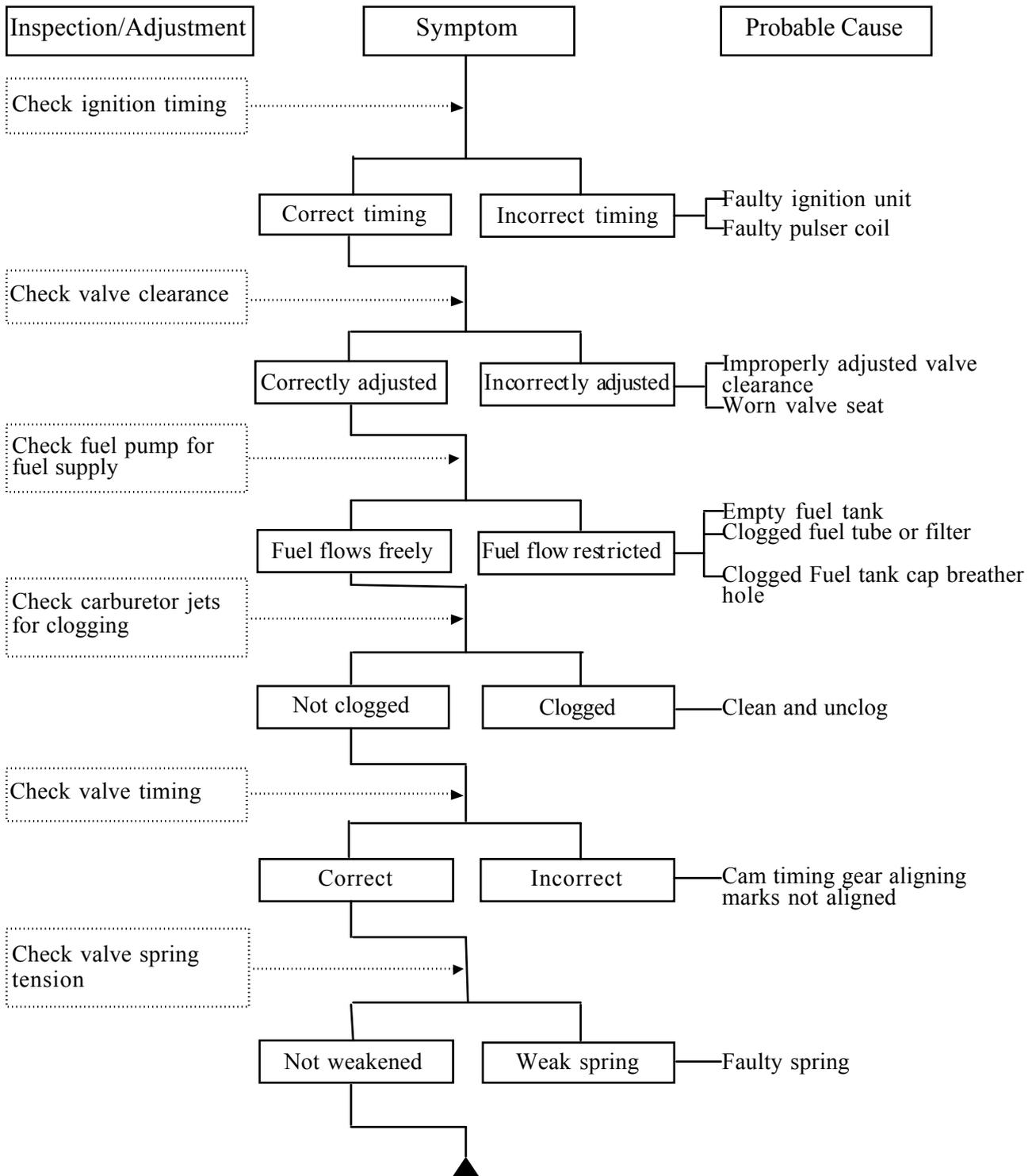
1. GENERAL INFORMATION

POOR PERFORMANCE (ESPECIALLY AT IDLE AND LOW SPEEDS)



1. GENERAL INFORMATION

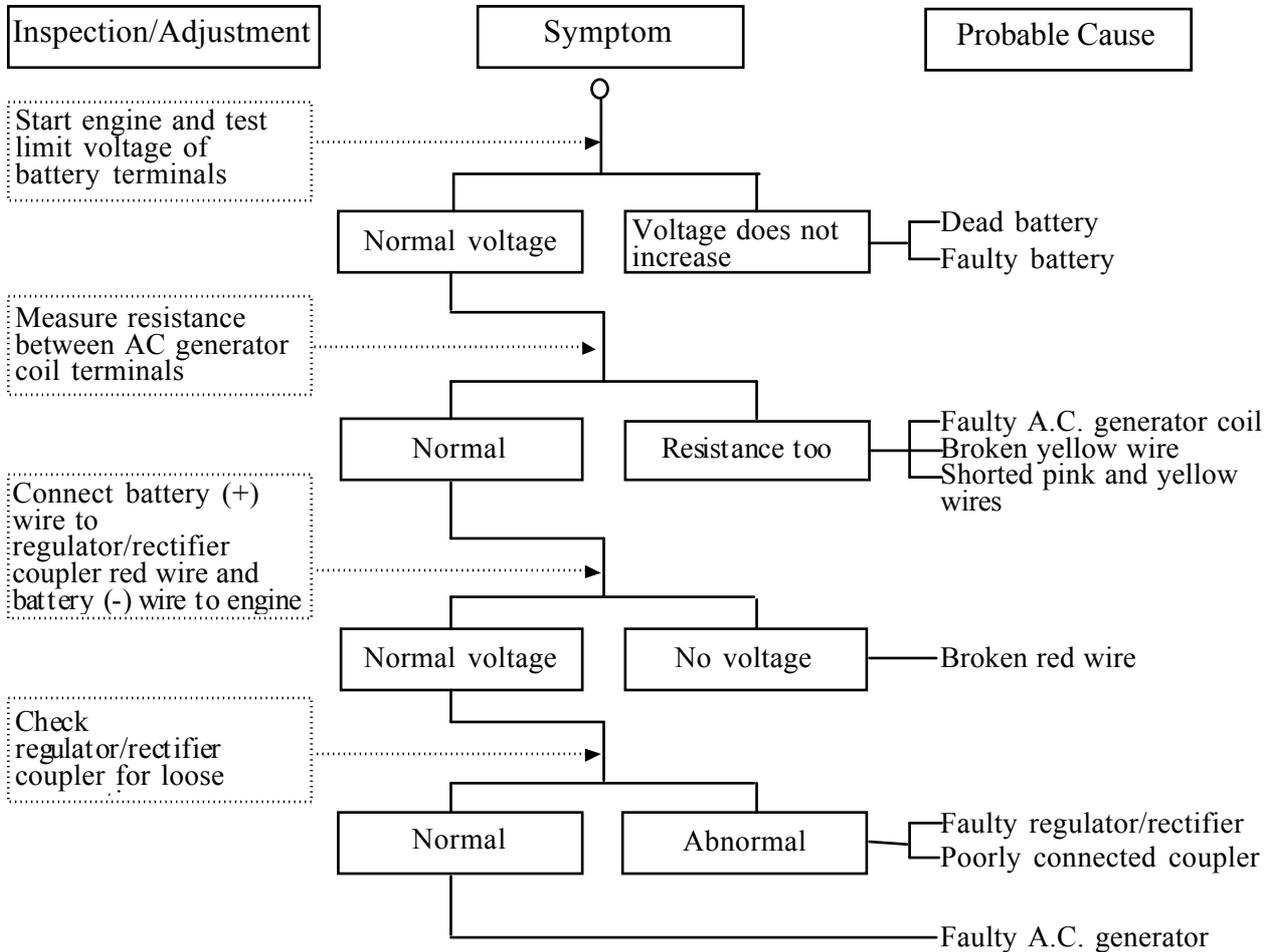
POOR PERFORMANCE (AT HIGH SPEED)



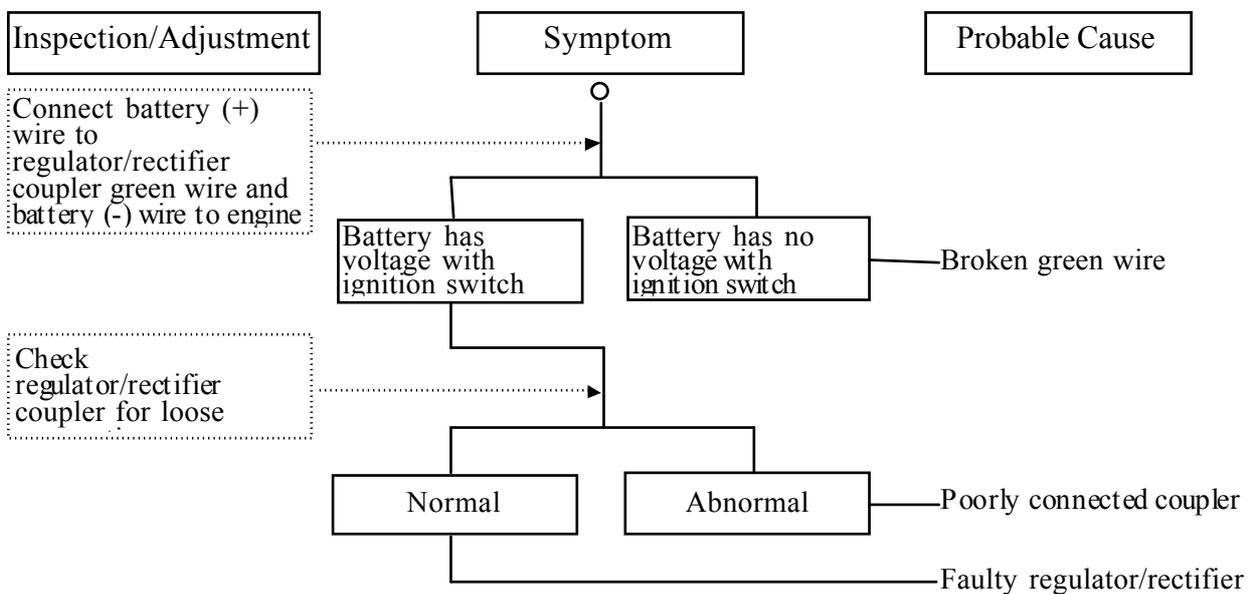
1. GENERAL INFORMATION

POOR CHARGING (BATTERY OVER DISCHARGING OR OVERCHARGING)

Undercharging



Overcharging



1. GENERAL INFORMATION

NO SPARK AT SPARK PLUG

