

Product: TGB Blade 425/400 Service Repair Workshop Manual

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TGB



BLADE 425/400 **SERVICE MANUAL**

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This service manual contains the technical data of each component inspection and repair for the **TGB BLADE** 425/400 ATV. The manual is shown with illustrations and focused on “Service Procedures”, “Operation Key Points”, and “Inspection Adjustment” so that provides technician with service guidelines.

If the style and construction of the ATV, **BLADE** 425/400, are different from that of the photos, pictures shown in this manual, the actual vehicle shall prevail. Specifications are subject to change without notice.

Service Department
TAIWAN GOLDEN BEE CO., LTD.

HOW TO USE THIS MANUAL

This service manual describes basic information of different system parts and system inspection & service for **TGB BLADE** 425/400 ATV. In addition, please refer to the manual contents in detailed for the model you serviced in inspection and adjustment.

The first chapter covers general information and trouble diagnosis.

The second chapter covers service maintenance information and special tools manual.

The third to the 11th chapters cover engine and driving systems.

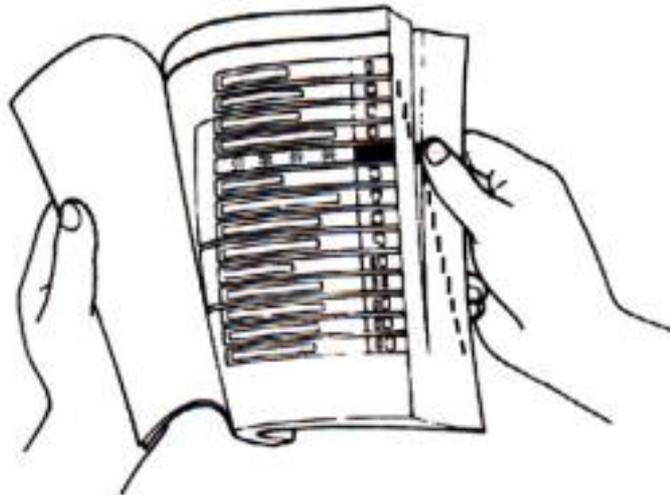
The 12th chapter is cooling system.

The 13th to the 16th chapter is contained the parts set of assembly frame body.

The 17th chapter is electrical equipment.

The 18th chapter is wiring diagram.

Please see index of content for quick having the special parts and system information.

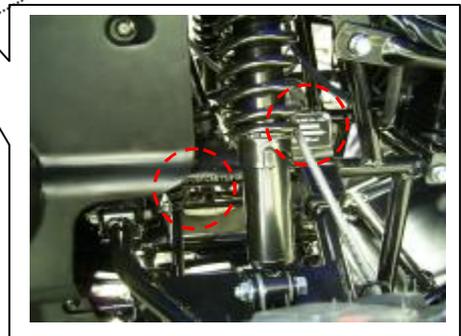
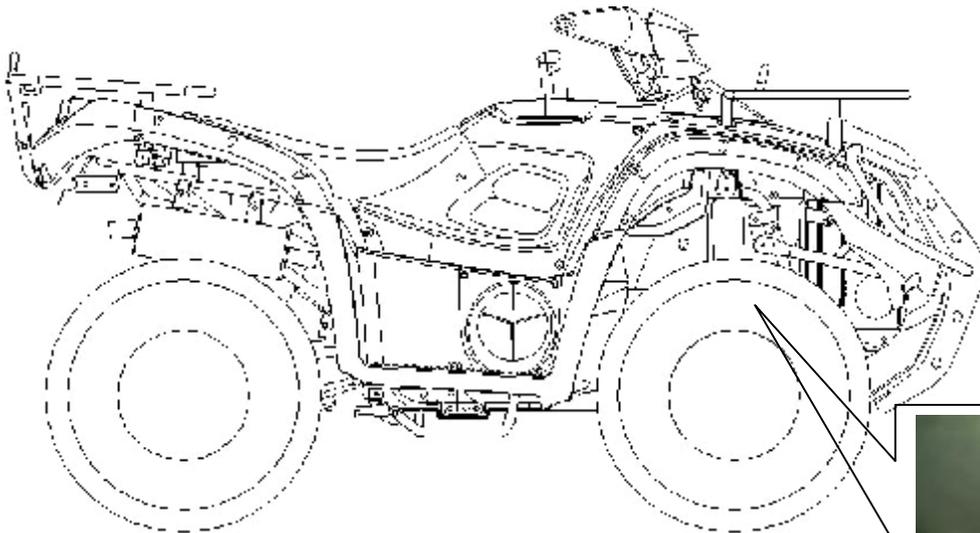


Page	Content	Index
1-1 ~ 1-18	GENERAL INFORMATION	1
2-1 ~ 2-14	SERVICE MAINTENANCE INFORMATION	2
3-1 ~ 3-7	LUBRICATION SYSTEM	3
4-1 ~ 4-12	FUEL SYSTEM	4
5-1 ~ 5-14	ENGINE REMOVAL	5
6-1 ~ 6-16	CYLINDER HEAD/VALVE	6
7-1 ~ 7-8	CYLINDER/PISTON	7
8-1 ~ 8-14	“V” TYPE BELT DRIVING SYSTEM/KICK-STARTER	8
9-1 ~ 9-11	FINAL DRIVING MECHANISM	9
10-1 ~ 10-10	ALTERNATOR/ STARTING CLUTCH	10
11-1 ~ 11-20	CRANKSHAFT/ CRANKCASE	11
12-1 ~ 12-11	COOLING SYSTEM	12
13-1 ~ 13-9	BODY COVER	13
14-1 ~ 14-14	FRONT BRAKE AND FRONT WHEEL	14
15-1 ~ 15-10	STEERING/FRONT SUSPENSION	15
16-1 ~ 16-15	REAR BRAKE/REAR WHEEL/REAR CUSHION	16
17-1 ~ 17-22	ELECTRICAL EQUIPMENT	17
18-1 ~ 18-2	ELECTRICAL DIAGRAM	18

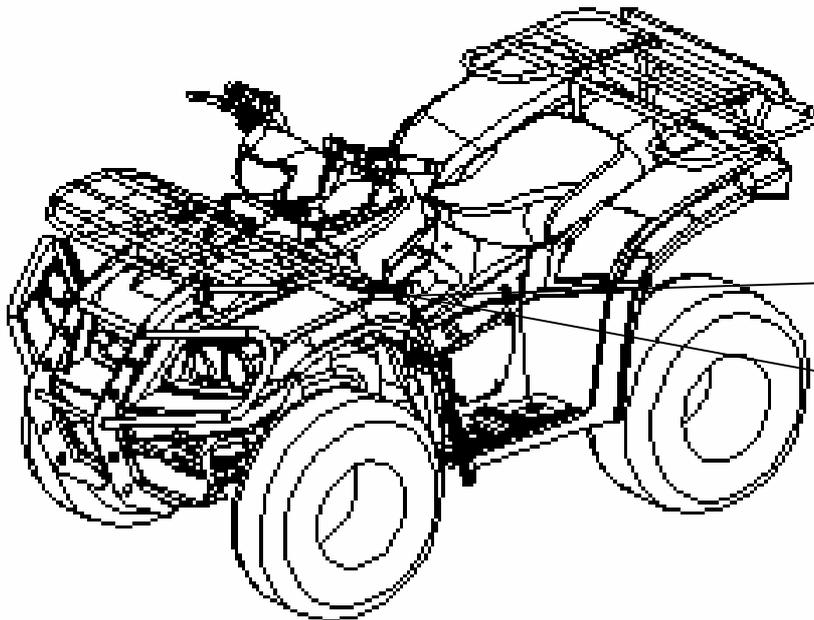
SERIAL NUMBER



Frame number



Engine number



Symbols and Marks..... 1-1	Torque Values 1-10
General Safety 1-2	Troubles Diagnosis..... 1-12
Service Precautions 1-3	Lubrication Points 1-17
Specifications..... 1-9	

Symbols and Marks

Symbols and marks are used in this manual to indicate what and where the special service are needed, in case supplemental information is procedures needed for these symbols and marks, explanations will be added to the text instead of using the symbols or marks.

	Warning	Means that serious injury or even death may result if procedures are not followed.
	Caution	Means that equipment damages may result if procedures are not followed.
	Engine oil	Limits to use SAE 10W-40 API SG class oil. Warranty will not cover the damage that caused by not apply with the limited engine oil.
	Grease	King Mate G-3 is recommended.
	Locking sealant	Apply sealant; medium strength sealant should be used unless otherwise specified.
	Oil seal	Apply with lubricant. °
	Renew	Replace with a new part before installation.
	Brake fluid	Use recommended brake fluid DOT4 or WELLRUN brake fluid.
	Special tools	Special tools
	Correct	Meaning correct installation.
	Wrong	Meaning wrong installation.
	Indication	Indication of components.
	Directions	Indicates position and operation directions
		Components assembly directions each other.
		Indicates where the bolt installation direction, --- means that bolt cross through the component (invisibility)

1. GENERAL INFORMATION

General Safety

Carbon monoxide

If you must run your engine, ensure the place is well ventilated. Never run your engine in a closed area. Run your engine in an open area, if you have to run your engine in a closed area, be sure to use an extractor.

 **Caution**

Exhaust contains toxic gas which may cause one to lose consciousness and even result in death.

Gasoline

Gasoline is a low ignition point and explosive material. Work in a well-ventilated place, no flame or spark should be allowed in the work place or where gasoline is being stored.

 **Caution**

Gasoline is highly flammable, and may explode under some conditions, keep it away from children.

Used engine oil

 **Caution**

Prolonged contact with used engine oil (or transmission oil) may cause skin cancer although it might not be verified. We recommend that you wash your hands with soap and water right after contacting. Keep the used oil beyond reach of children.

Hot components

 **Caution**

Components of the engine and exhaust system can become extremely hot after engine running. They remain very hot even after the engine has been stopped for some time. When performing service work on these parts, wear insulated gloves and wait until cooling off.

Battery

 **Caution**

- Battery emits explosive gases; flame is strictly prohibited. Keep the place well ventilated when charging the battery.
- Battery contains sulfuric acid (electrolyte) which can cause serious burns so be careful do not be spray on your eyes or skin. If you get battery acid on your skin, flush it off immediately with water. If you get battery acid in your eyes, flush it off immediately with water and then go to hospital to see an ophthalmologist.
- If you swallow it by mistake, drink a lot of water or milk, and take some laxative such as castor oil or vegetable oil and then go to see a doctor.
- Keep electrolyte beyond reach of children.

Brake shoe

Do not use an air hose or a dry brush to clean components of the brake system; use a vacuum cleaner or the equivalent to avoid dust flying.

 **Caution**

Inhaling brake shoe or pad ash may cause disorders and cancer of the breathing system

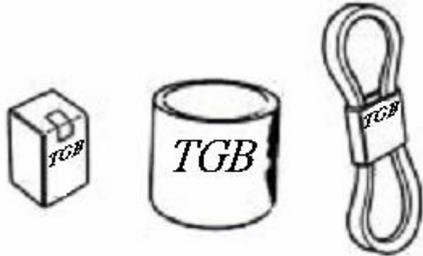
Brake fluid

 **Caution**

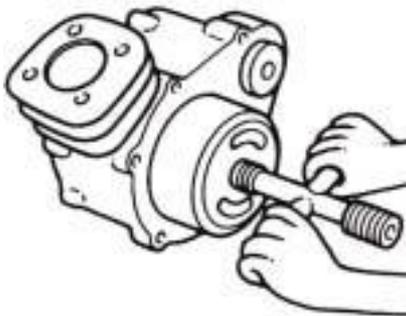
Spilling brake fluid on painted, plastic, or rubber parts may cause damage to the parts. Place a clean towel on the above-mentioned parts for protection when servicing the brake system. Keep the brake fluid beyond reach of children.

Service Precautions

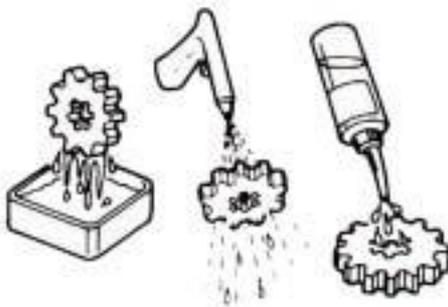
- Always use with TGB genuine parts and recommended oils. Using non-designed parts for TGB ATV may damage the ATV.



- Special tools are designed for remove and install of components without damaging the parts being worked on. Using wrong tools may result in parts damaged.



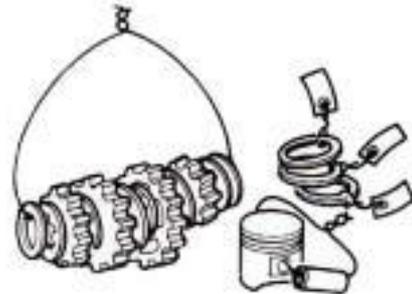
- When servicing this ATV, use only metric tools. Metric bolts, nuts, and screws are not interchangeable with the English system, using wrong tools and fasteners may damage this vehicle.
- Clean the outside of the parts or the cover before removing it from the ATV. Otherwise, dirt and deposit accumulated on the part's surface may fall into the engine, chassis, or brake system to cause damage.
- Wash and clean parts with high ignition point solvent, and blow dry with compressed air. Pay special attention to O-rings or oil seals because most cleaning agents have an adverse effect on them.



- Never bend or twist a control cable to prevent unsmooth control and premature worn out.



- Rubber parts may become deteriorated when old, and prone to be damaged by solvent and oil. Check these parts before installation to make sure that they are in good condition, replace if necessary.
- When loosening a component which has different sized fasteners, operate with a diagonal pattern and work from inside out. Loosen the small fasteners first. If the bigger ones are loosen first, small fasteners may receive too much stress.
- Store complex components such as transmission parts in the proper assemble order and tie them together with a wire for ease of installation later.

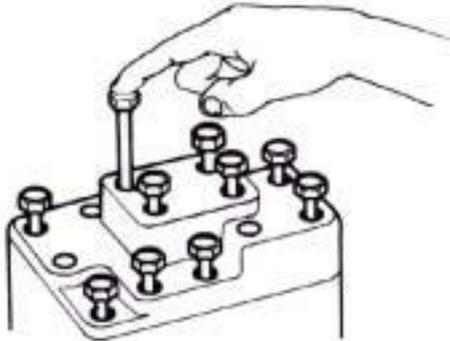


- Note the reassemble position of the important components before disassembling them to ensure they will be reassembled in correct dimensions (depth, distance or position).
- Components not to be reused should be replaced when disassembled including gaskets metal seal rings, O-rings, oil seals, snap rings, and split pins.

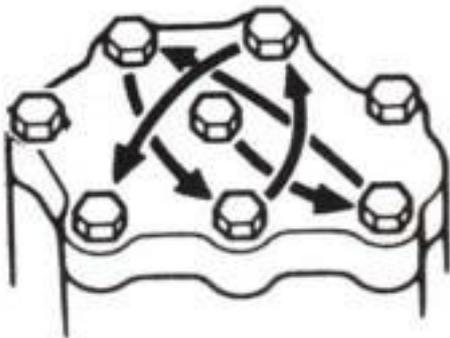


1. GENERAL INFORMATION

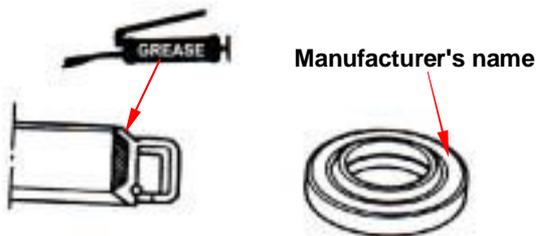
- The length of bolts and screws for assemblies, cover plates or boxes is different from one another, be sure they are correctly installed. In case of confusion, Insert the bolt into the hole to compare its length with other bolts, if its length out side the hole is the same with other bolts, it is a correct bolt. Bolts for the same assembly should have the same length.



- Tighten assemblies with different dimension fasteners as follows: Tighten all the fasteners with fingers, then tighten the big ones with special tool first diagonally from inside toward outside, important components should be tightened 2 to 3 times with appropriate increments to avoid warp unless otherwise indicated. Bolts and fasteners should be kept clean and dry. Do not apply oil to the threads.



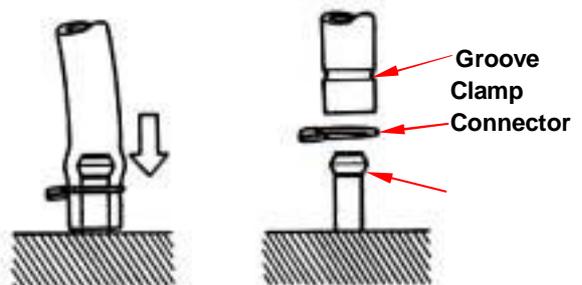
- When oil seal is installed, fill the groove with grease, install the oil seal with the name of the manufacturer facing outside, and check the shaft on which the oil seal is to be installed for smoothness and for burrs that may damage the oil seal.



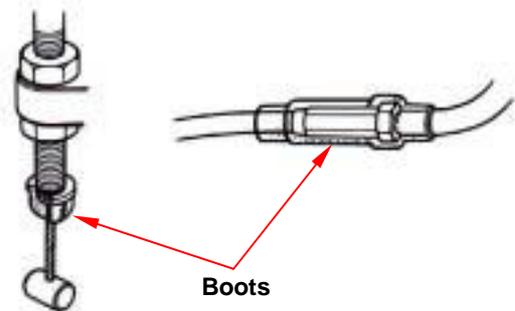
- Remove residues of the old gasket or sealant before reinstallation, grind with a grindstone if the contact surface has any damage.



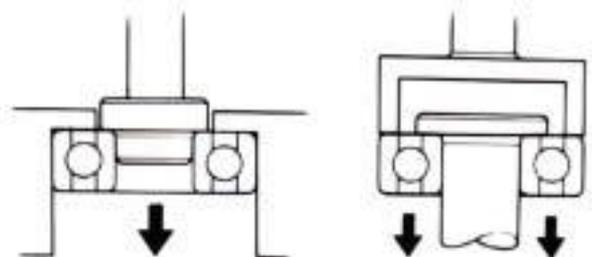
- The ends of rubber hoses (for fuel, vacuum, or coolant) should be pushed as far as they can go to their connections so that there is enough room below the enlarged ends for tightening the clamps.



- Rubber and plastic boots should be properly reinstalled to the original correct positions as designed.



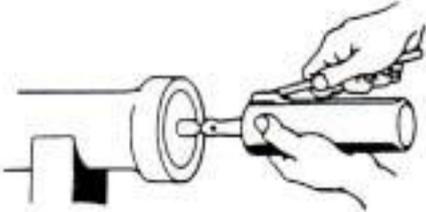
- The tool should be pressed against two (inner and outer) bearing races when removing a ball bearing. Damage may result if the tool is pressed against only one race (either inner race or outer race). In this case, the bearing should be replaced. To avoid damaging the bearing, use equal force on both races.



Both of these examples can result in bearing damage.

1. GENERAL INFORMATION

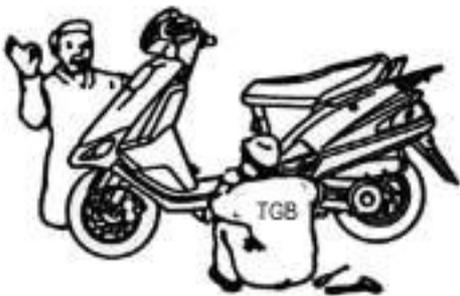
- Lubricate the rotation face with specified lubricant on the lubrication points before assembling.



- Check if positions and operation for installed parts is in correct and properly.



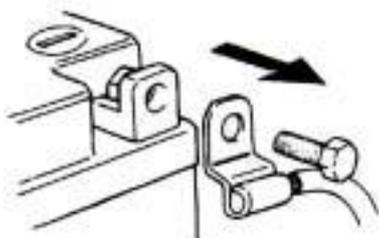
- Make sure service safety each other when conducting by two persons.



- Note that do not let parts fall down.



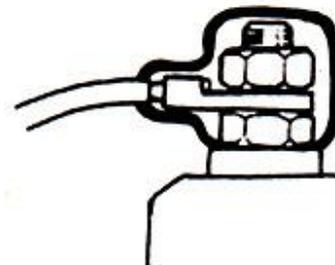
- Before battery removal operation, it has to remove the battery negative (-) cable firstly. Notre tools like open-end wrench do not contact with body to prevent from circuit short and create spark.



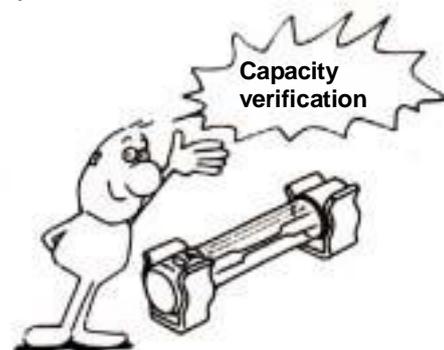
- After service completed, make sure all connection points is secured. Battery positive (+) cable should be connected firstly.
- And the two posts of battery have to be greased after connected the cables.



- Make sure that the battery post caps are located in properly after the battery posts had been serviced.

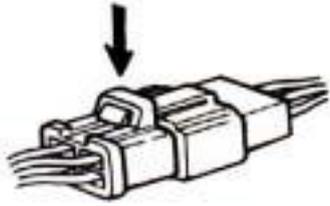


- If fuse burned, it has to find out the cause and solved it. And then replace with specified capacity fuse.



1. GENERAL INFORMATION

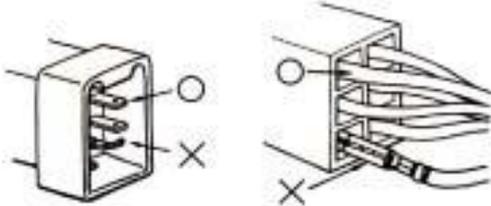
- When separating a connector, it locker has to be unlocked firstly. Then, conduct the service operation.



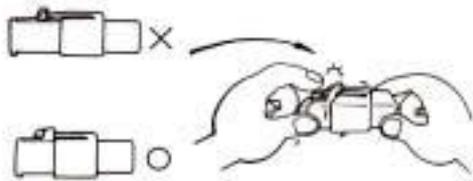
- Do not pull the wires as removing a connector or wires. Hold the connector body.



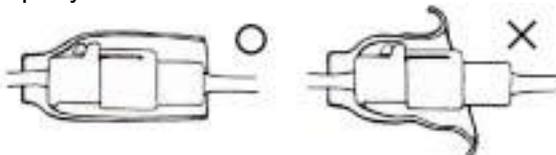
- Make sure if the connector pins are bent, extruded or loosen.



- Insert the connector completely. If there are two lockers on two connector sides, make sure the lockers are locked in properly. Check if any wire loose.



- Check if the connector is covered by the twin connector boot completely and secured properly.



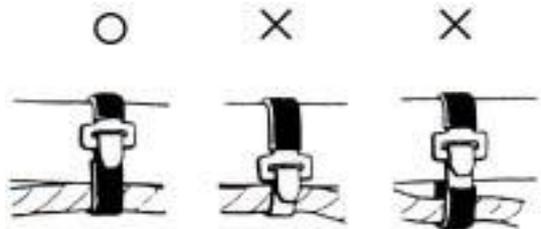
- Before terminal connection, check if the boot is crack or the terminal is loose.



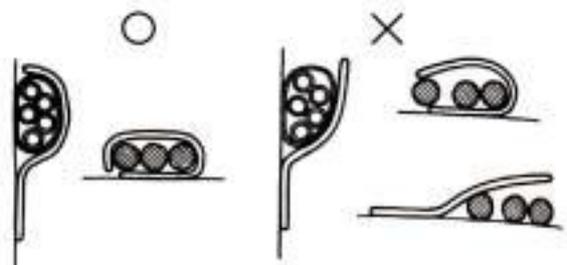
- Insert the terminal completely. Check if the terminal is covered by the boot. Do not let boot open facing up.



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



- Wire band and wire harness have to be clamped secured properly.

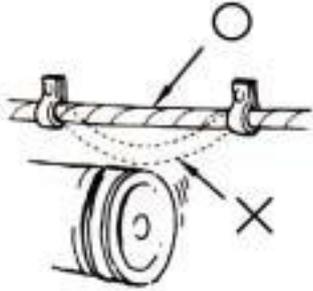


- Do not squeeze wires against the weld or its clamp.

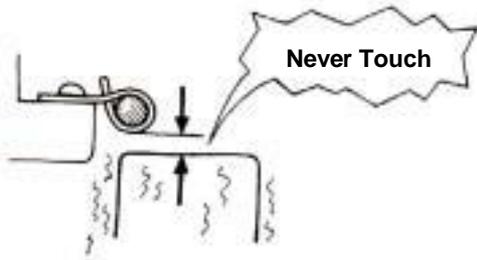


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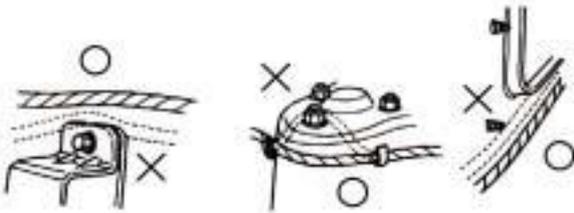
- Do not let the wire harness contact with rotating, moving or vibrating components as routing the harness.



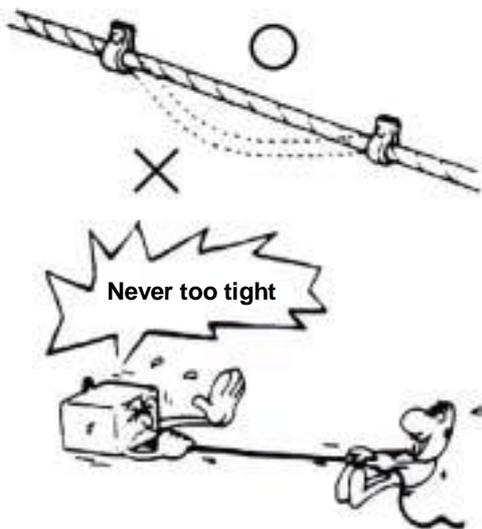
- Keep wire harnesses far away from the hot parts.



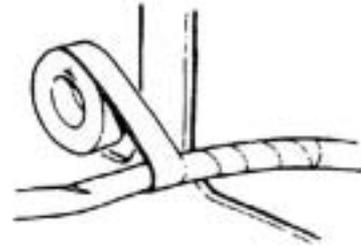
- Route wire harnesses to avoid sharp edges or corners and also avoid the projected ends of bolts and screws.



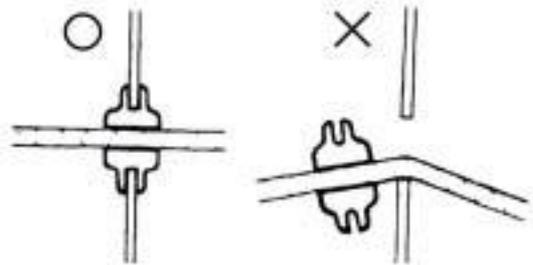
- Route harnesses so that they neither pull too tight nor have excessive slack.



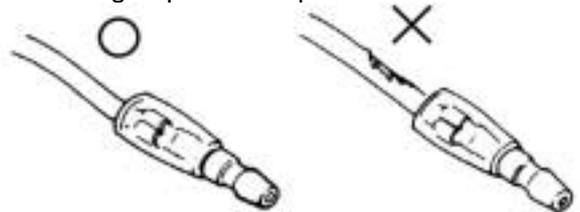
- Protect wires or wire harnesses with electrical tape or tube if they contact a sharp edge or corner. Thoroughly clean the surface where tape is to be applied.



- Secure the rubber boot firmly as applying it on wire harness.



- Never use wires or harnesses which insulation has been broken. Wrap electrical tape around the damaged parts or replace them.

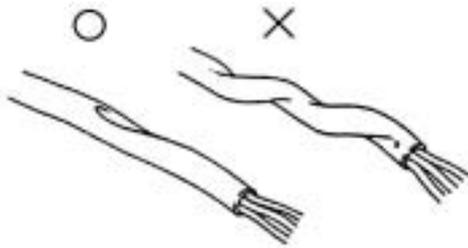


- Never clamp or squeeze the wire harness as installing other components.

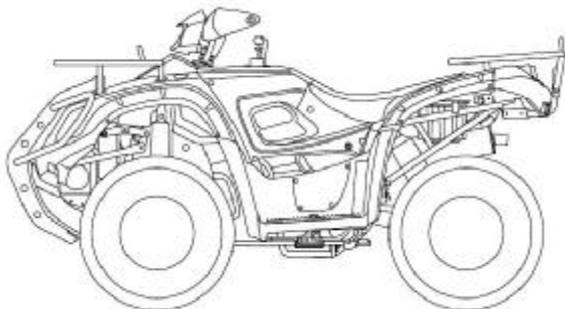


1. GENERAL INFORMATION

- Do not let the wire harness been twisted as installation.

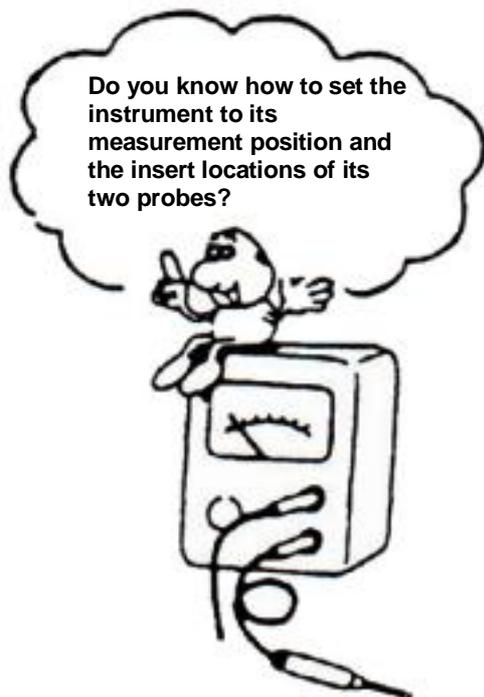
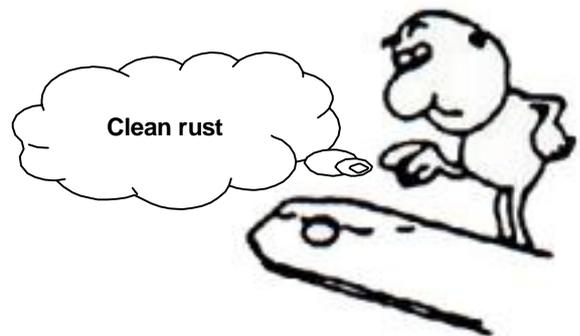


- Wire harnesses routed along the handlebar should not be pulled too tight or have excessive slack, be rubbed against or interfere with adjacent or surrounding parts in all steering positions.



- Before operating a test instrument, operator should read the operation manual of the instrument. And then, conduct test in accordance with the instruction.

- With sand paper to clean rust on connector pins/terminals if found. And then conduct connection operation later.



Specifications

MAKER		TGB		MODEL		FBE	
Dimension	Overall Length	2290 mm		Suspension System	Front	Double arm	
	Overall Width	1154 mm			Rear	Unit Swing	
	Overall Height	1242 mm		Tire Specifications	Front	185/88-12	
	Wheel Base	1268 mm			Rear	270/60-12	
Wheel tread	Front	940 mm		Rim	Aluminum		
	Rear	890 mm		Brake System	Front	Disk (Ø 180mm)	
Curb Weight	Front	170 kg			Rear	Disk (Ø 200mm)	
	Rear	145 kg		Performance	Max. Speed	Above 92 km/hr	
	Total	315 kg			Climb Ability	Below 25°	
Passengers/ weight	Two / 150 kg		Reduction	Primary Reduction	Belt		
Total Weight	Front	205 kg		Secondary Reduction	Gear / Shaft		
	Rear	280 kg		Clutch	Centrifugal, dry type		
	Total	485 kg		Transmission	C.V.T., auto speed change		
Type	4-Stroke Engine		Speedometer	0 ~ 300 km/hr			
Installation and arrangement	Vertical, below center, incline			Horn	93 ~ 112dB/A		
Fuel Used	Above 92 unleaded		Muffler	Expansion & Pulse Type			
Cycle/Cooling	4-stroke/Water cooled			Exhaust Pipe Position and Direction	Left side, and Backward		
Cylinder	Bore	Ø86 mm		Lubrication System	Forced circulation & splashing		
	Stroke	69.4 mm		Exhaust Concentration	Solid Particulate		
	Number/ Arrangement	Single Cylinder			CO	Below 7.0 g/ km	
Displacement	403.1 cc		HC		Below 1.5g/ km		
Compression Ratio	9.2 : 1		Nox		Below 0.4g/ km		
Max. HP	14.9kw / 6500rpm		E.E.C.	—			
Max. Torque	25.5Nm / 4000rpm		P.C.V.	—			
Ignition	C.D.I.		Catalytic reaction control system	—			
Starting System	Electrical starter						
Air filtration	Sponge						

1. GENERAL INFORMATION

Torque Values

The torque values listed in above table are for more important tighten torque values. Please see standard values for not listed in the table.

Standard Torque Values for Reference

Type	Tighten Torque	Type	Tighten Torque
5 mm bolt、nut	0.45~0.6kgf-m	5 mm screw	0.35~0.5kgf-m
6 mm bolt、nut	0.8~1.2kgf-m	6 mm screw、SH nut	0.7~ 1.1kgf-m
8 mm bolt、nut	1.8~2.5kgf-m	6 mm bolt、nut	1.0 ~1.4kgf-m
10 mm bolt、nut	3.0~4.0kgf-m	8 mm bolt、nut	2.4 ~3.0kgf-m
12 mm bolt、nut	5.0~6.0kgf-m	10 mm bolt、nut	3.5~4.5kgf-m

Engine Torque Values

Item	Q'ty	Thread Dia. (mm)	Torque Value(kgf-m)	Remarks
Cylinder stud bolt	4	10	1.0~1.4	Apply oil to thread
Cylinder head nut	4	8	3.6~4.0	
Cylinder head right bolt	2	8	2.0~2.4	
Cylinder head side cover bolt	2	6	1.0~1.4	
Cylinder head cover bolt	4	6	1.0~1.4	
Cylinder head stud bolt (inlet pipe)	2	6	1.0~1.4	
Cylinder head stud bolt (EX. pipe)	2	8	2.4~3.0	
Air inject pipe bolt	4	6	1.0~1.4	
Air inject reed valve bolt	2	3	0.07~0.09	
Tappet adjustment screw nut	4	5	0.7~1.1	
Spark plug	1	10	1.0~1.2	
Tensioner lifter bolt	2	6	1.0~1.4	
Carburetor insulator bolt	2	6	0.7~1.1	
Oil pump screw	2	3	0.1~0.3	
Water pump impeller	1	7	1.0~1.4	
Engine left cover bolt	9	6	1.1~1.5	
Engine oil draining bolt	1	12	3.5~4.5	
Engine oil strainer cap	1	30	1.3~1.7	
Mission draining bolt	1	8	1.1~1.5	
Mission filling bolt	1	12	3.5~4.5	
Shift drum fixing bolt	1	14	3.5~4.5	
Clutch driving plate nut	1	28	5.0~6.0	
Clutch outer nut	1	14	5.0~6.0	
Drive face nut	1	14	8.5~10.5	
ACG. Flywheel nut	1	14	5.0~6.0	
Crankcase bolts	7	6	0.8~1.2	
Mission case bolt	7	8	2.6~3.0	

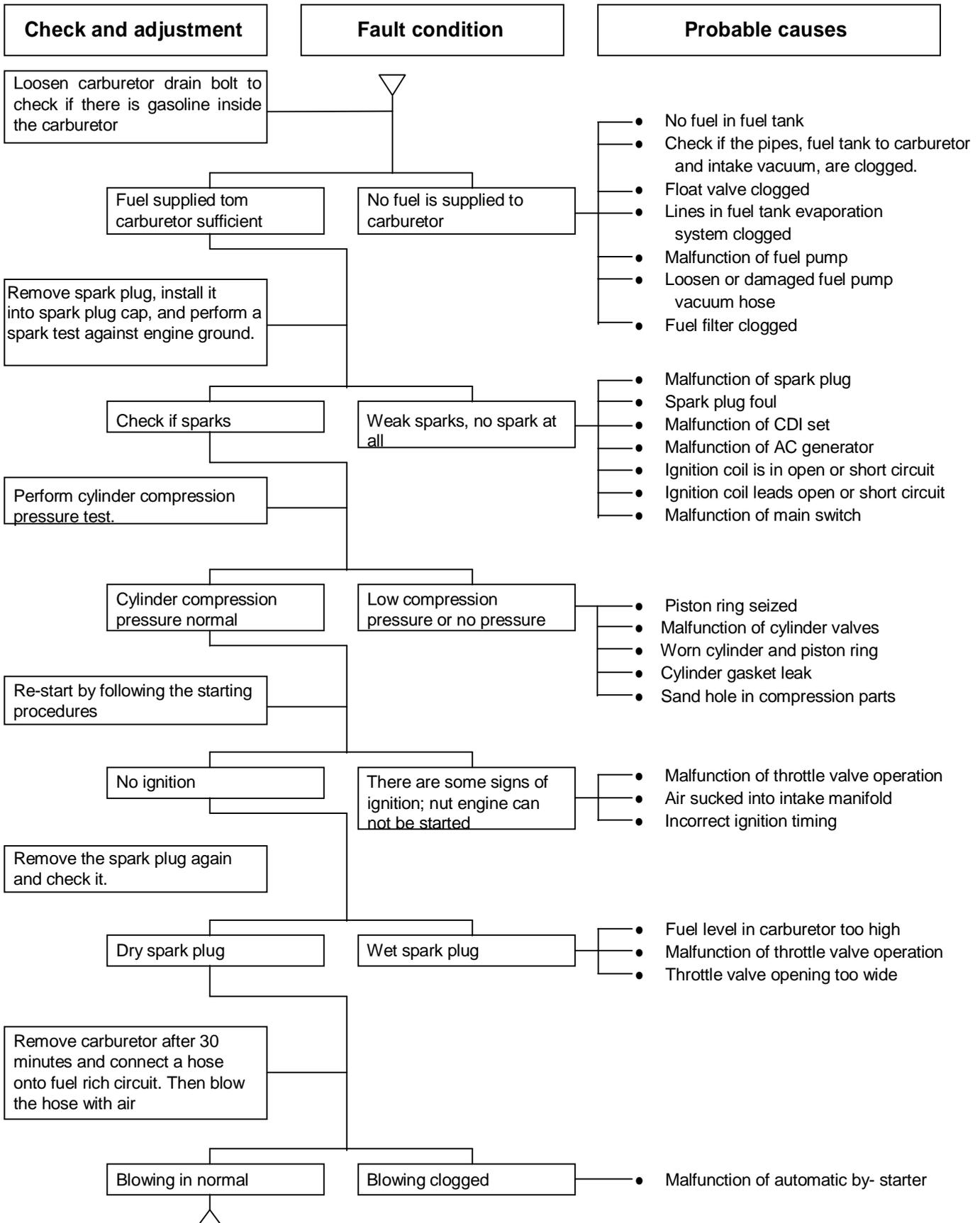
Frame Torque Values

Item	Q'ty	Thread Dia. (mm)	Torque Value(kgf-m)	Remarks
Handlebar upper holder bolt	4	6	2.40	
Steering shaft nut	1	10	5.00	
Steering tie-rod nut	4	10	5.00	
Knuckle nut	2	10	5.00	
Steering shaft holder bolt	2	8	3.40	
Tie rod lock nut	4	10	3.60	
Handlebar under holder nut	2	8	4.00	
Front wheel nut	8	10	2.40	
Front axle castle nut	2	14	5.00	
Rear axle castle nut	2	14	5.00	
Rear wheel nut	8	10	2.40	
Engine hanger nut	4	12	8.50	
Rear axle holder bolt	4	12	9.20	
Drive gear bolt	2	10	4.6	
Driven gear nut	4	10	4.6	
Swing arm pivot bolt	1	14	9.20	
Front suspension arm nut	4	10	5.00	
Front / Rear cushion mounting bolt	6	10	4.60	
Brake lever nut	2	6	1.00	
Brake hose bolt	13	10	3.50	
Brake caliper bolt	6	6	3.25	
Brake disk mounting bolt	11	8	4.25	
Air-bleed valve	3	5	0.50	
Exhaust muffler mounting bolt	2	8	3.00	
Exhaust muffler connection nut	2	7	1.20	

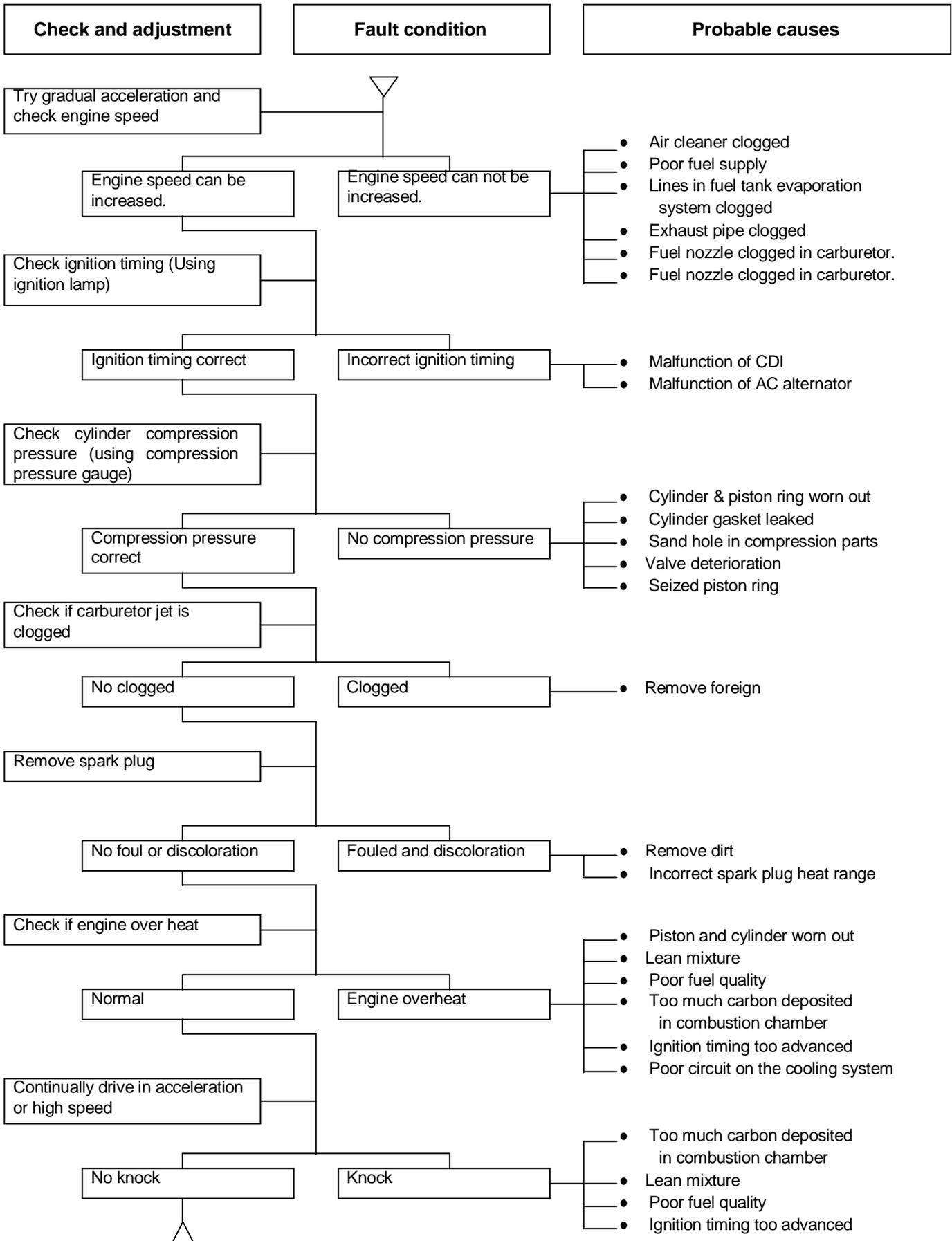
1. GENERAL INFORMATION

Troubles Diagnosis

A. Engine hard to start or can not be started

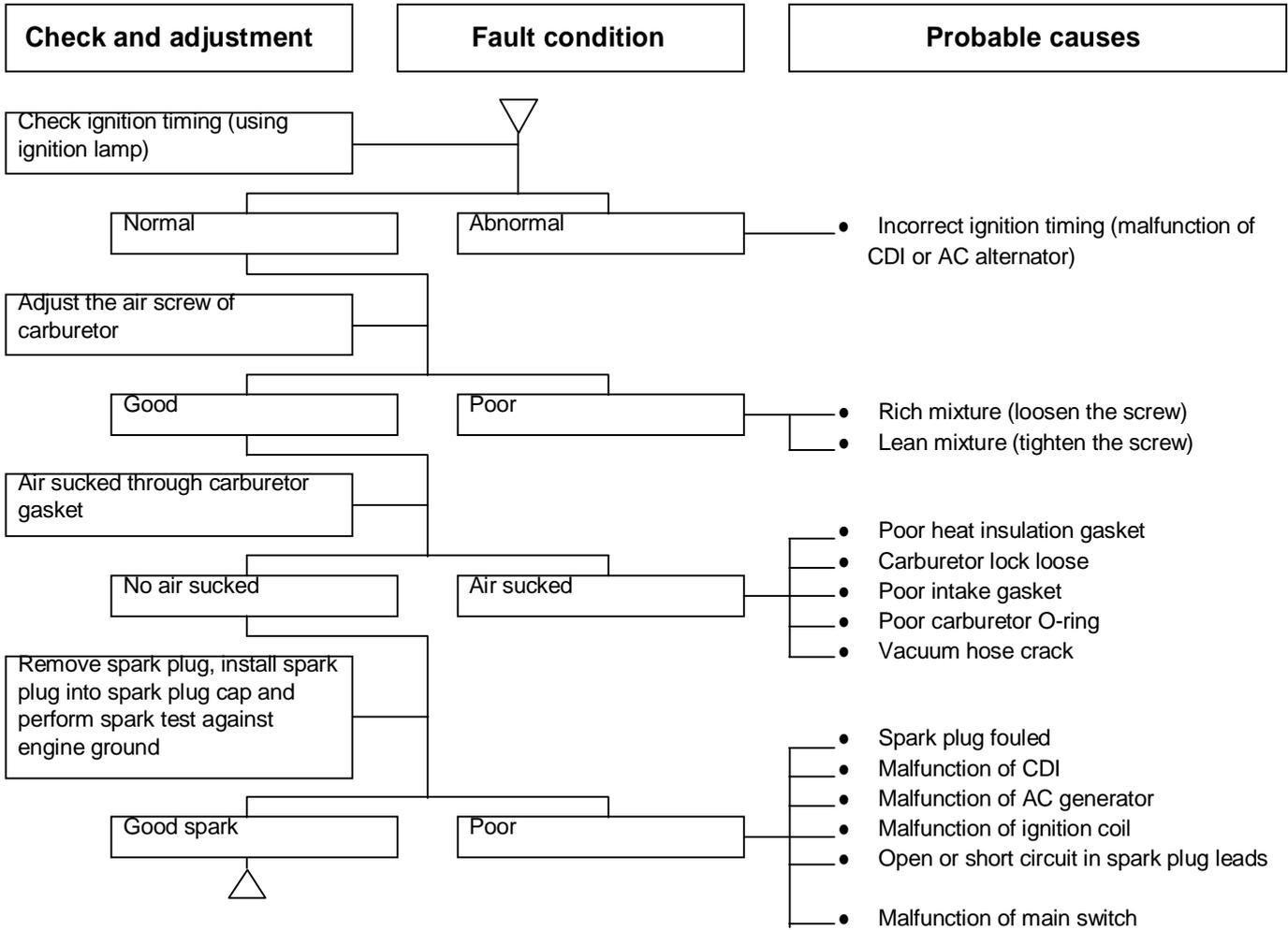


B. Engine run sluggish (Speed does not pick up, lack of power)

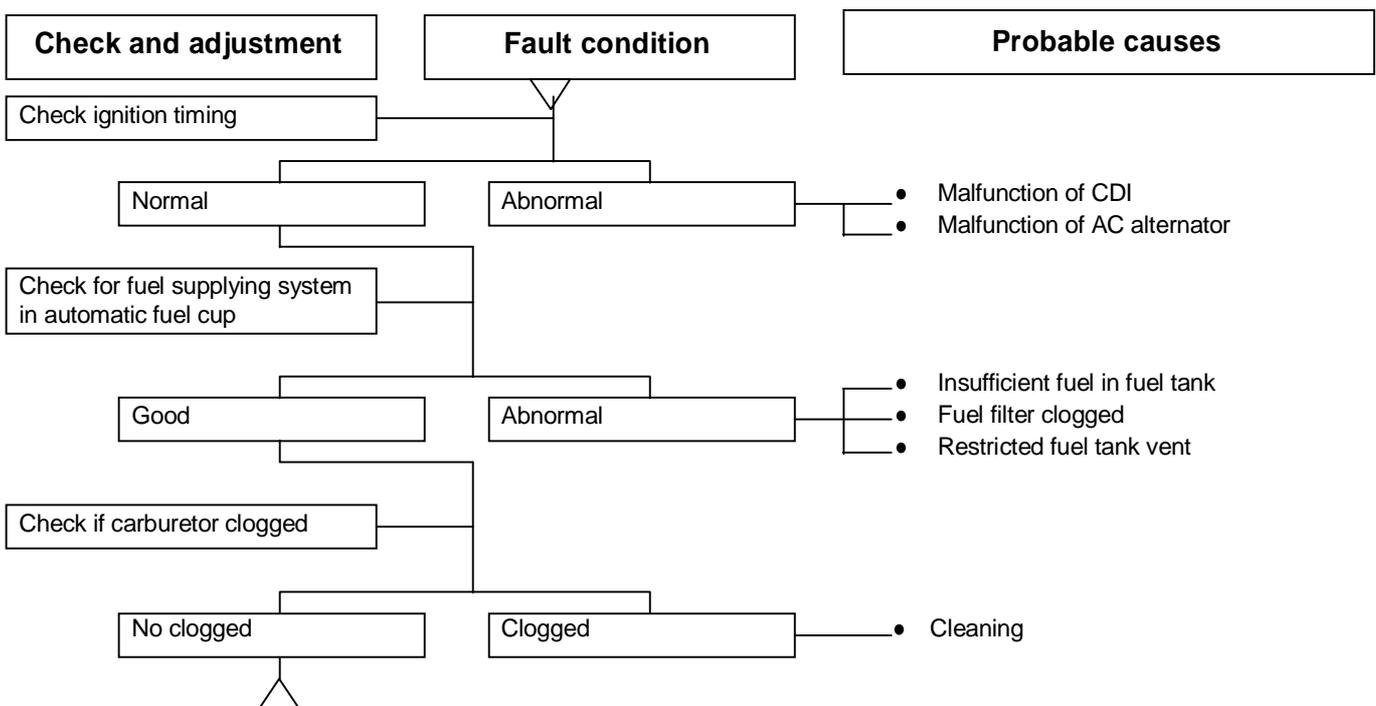


1. GENERAL INFORMATION

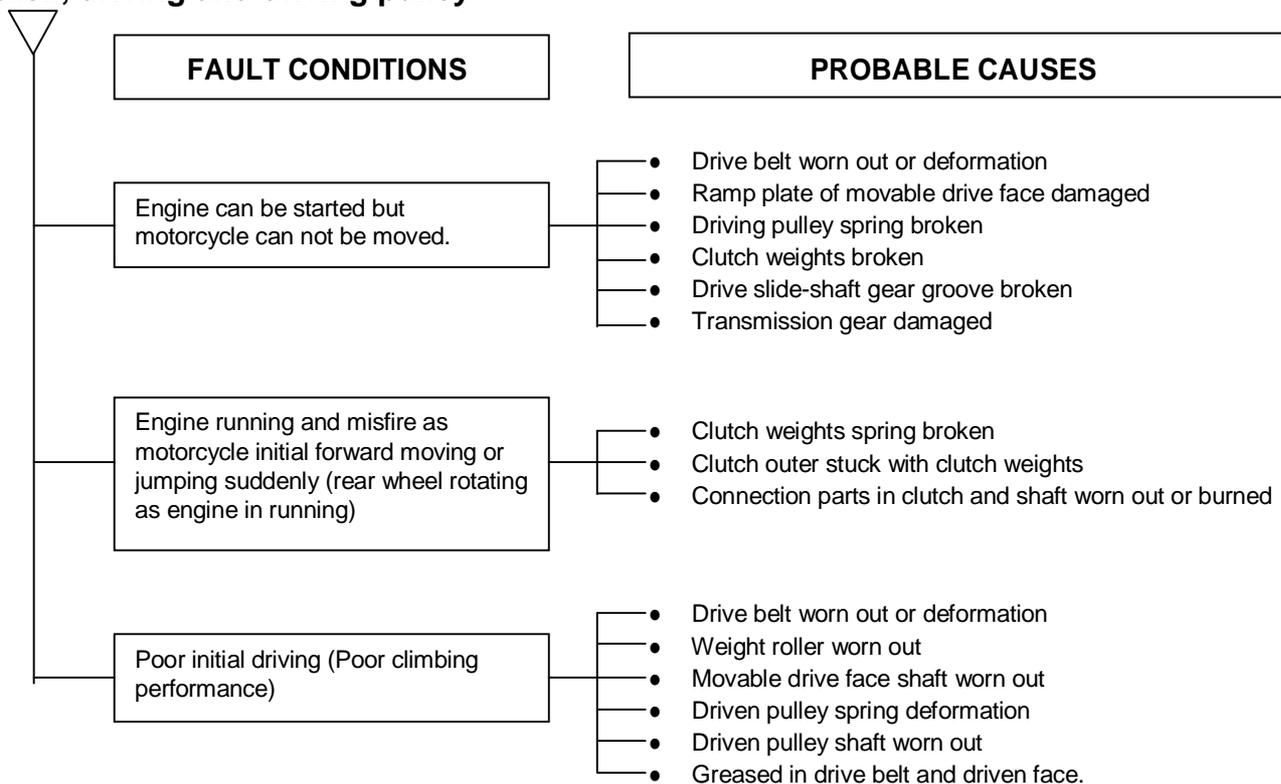
C. Engine runs sluggish (especially in low speed and idling)



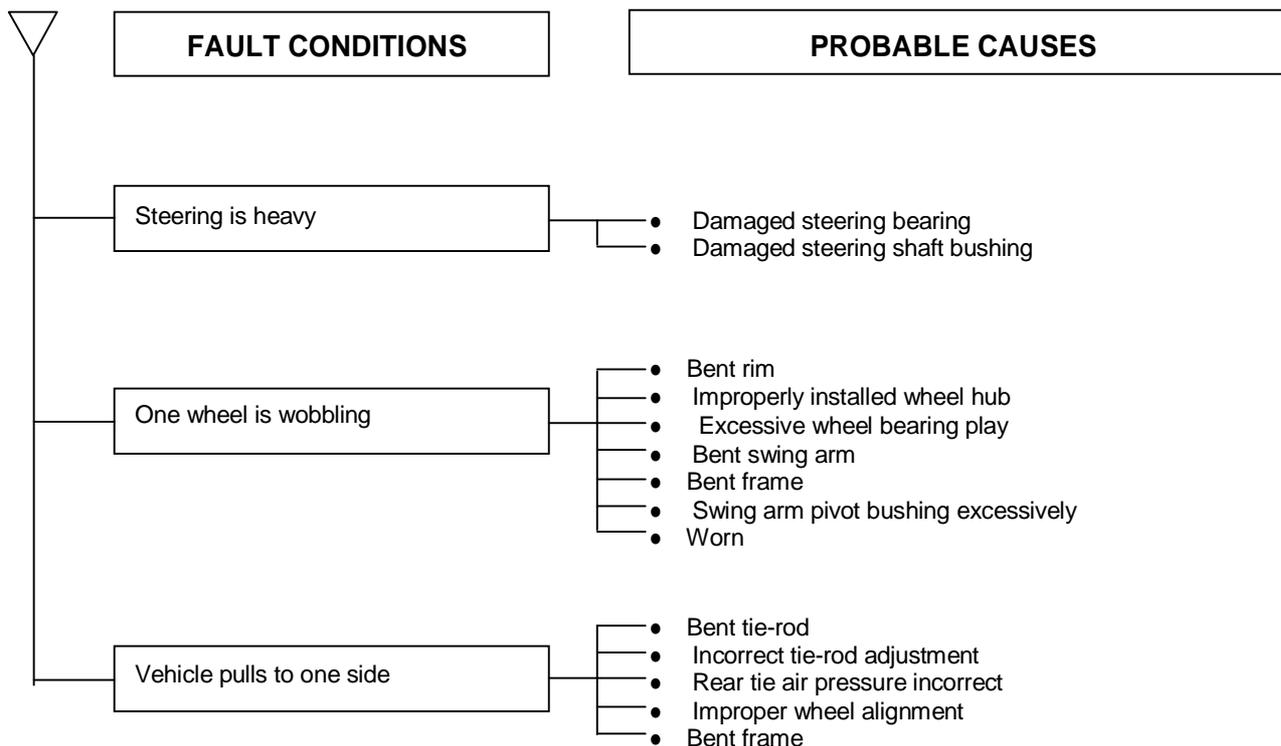
D. Engine runs sluggish (High speed)



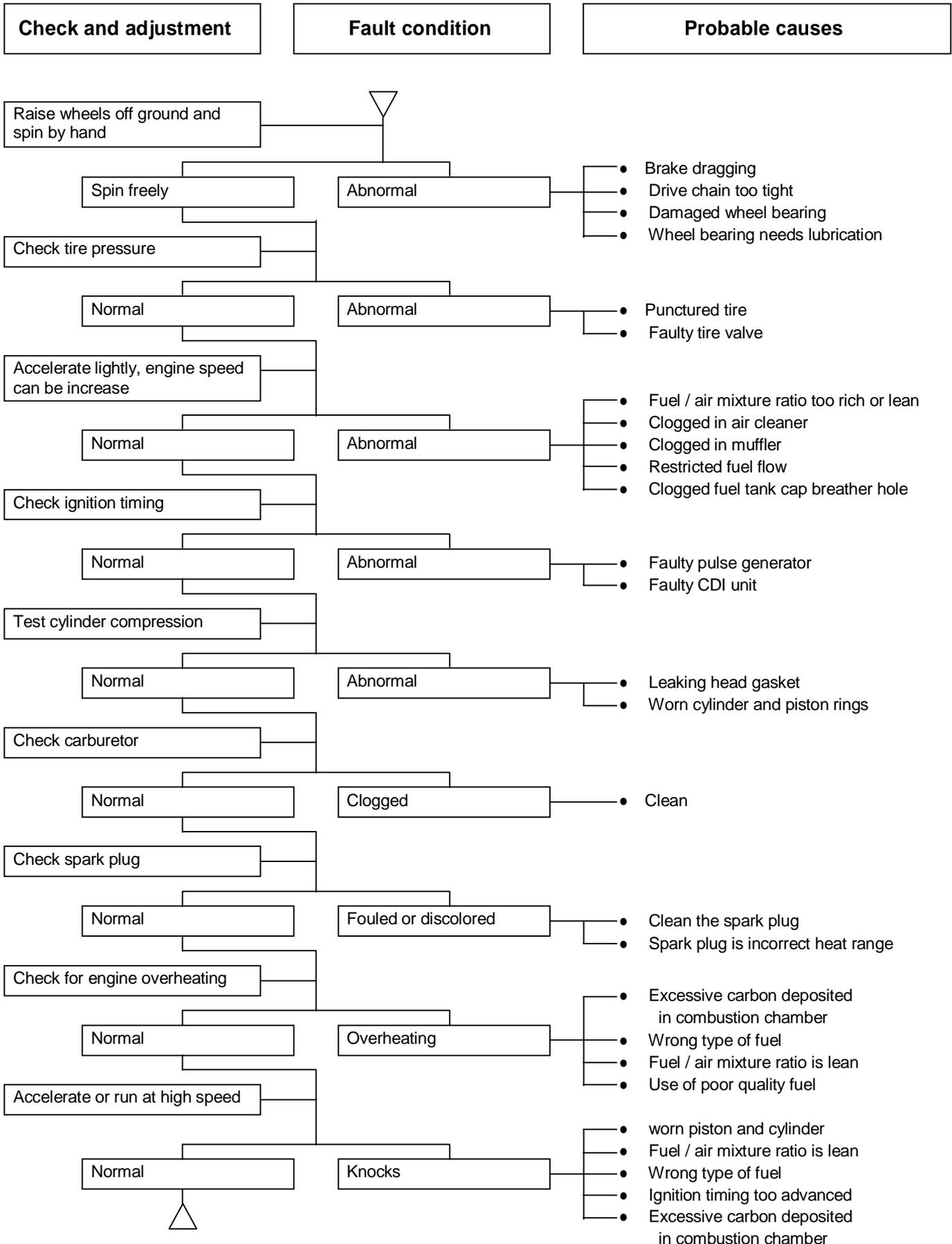
E. Clutch, driving and driving pulley



F. Poor handling



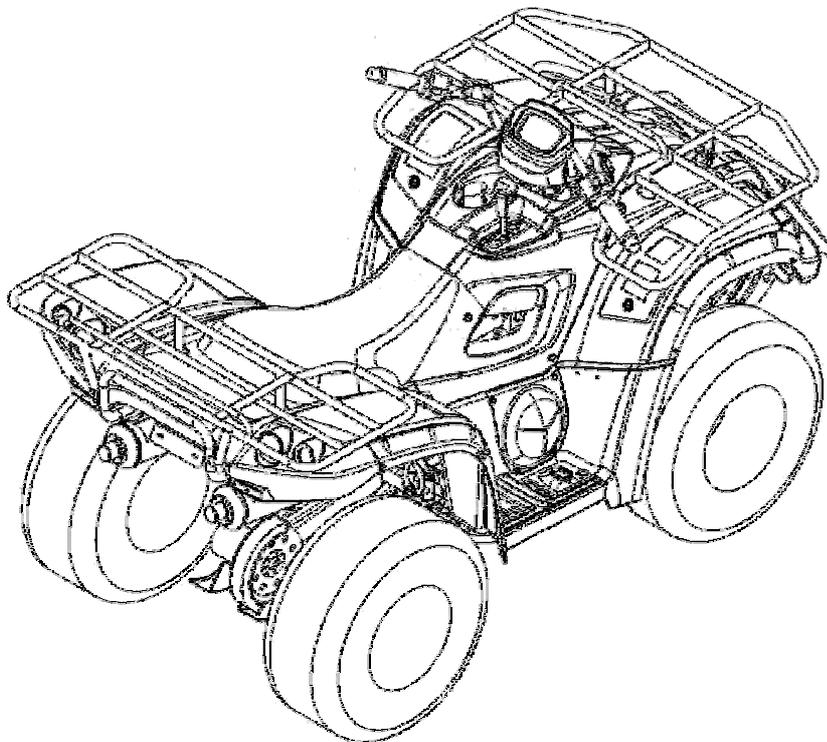
G. Loss power



Lubrication Points



 Acceleration cable/ Front & rear brake lever pivot



 Speedometer gear



 Wheel bearing



Note:

Precautions in Operation	2-1	Brake System (Disk Brake)	2-8
Periodical Maintenance Schedule	2-2	Brake Light Switch/Starting Inhibitor Switch	2-9
Fuel Lines	2-3	Headlight Beam Distance	2-10
Acceleration Operation	2-3	Clutch Disc Wear	2-10
Air Cleaner	2-3	Cushion	2-10
Spark Plug	2-3	Steering Handle	2-11
Valve Clearance	2-4	Wheel/Tire	2-11
Carburetor Idle Speed Adjustment	2-5	Nuts, Bolts Tightness	2-11
Ignition System	2-6	Special Tools List	2-12
Cylinder Compression Pressure	2-6		
Drive Belt	2-7		

Precautions in Operation

Specification

Fuel Tank Capacity		18000 c.c.
Engine Oil	Capacity	3500 c.c.
	Change	3200 c.c.
Transmission Gear oil	Capacity	350 c.c.
	Change	350 c.c.
Capacity of coolant	Engine + radiator	2200 c.c.
	Reservoir upper	1200 c.c.
Clearance of throttle valve		1~3 mm
Spark plug	Type	NGK CR7E
	Gap	0.7~0.8 mm
“F” Mark in idling speed		BTDC 20° / 1500 rpm
Full timing advanced		BTDC 51° / 6200 rpm
Idling speed		1800±100 rpm
Cylinder compression pressure		--- kgf/cm ²
Valve clearance		IN:0.10 ± 0.02 mm EX:0.15 ± 0.02 mm
Tire dimension	Front	AT25x8-12
	Rear	AT25x10-12
Tire pressure (cold)		5 ±1 psi (On road) / 10 ±1 psi (Off road)
Battery		12V18Ah (type : MF battery)

2. MAINTENANCE INFORMATION

Periodical Maintenance Schedule

INTERVAL	MONTHS	1	3	6	12
	Kms	INITIAL 200	EVERY 1000	EVERY 2000	EVERY 4000
ITEM	MILES	INITIAL 120	EVERY 600	EVERY 1200	EVERY 2400
Muffler Bolts and Exhaust Pipe Nuts		T	T	T	T
Valve Clearance		I	-	I	I
Air Cleaner		-	C	C	R
Engine Idle RPM		I	I	I	I
Spark Plus		-	-	I	I
	Replace Every 6000KM (4000 MILES)				
Engine Oil		R	-	R	R
Oil Filter		R	-	R	R
Front Differential Set Oil		-	-	I	I
	Replace Every 2 Years				
Final Gear Oil		-	-	I	I
	Replace Every 2 Years				
Spark Arrester		-	-	C	C
C.V.T Belt		-	-	I	I
Fuel Tube		-	I	I	I
	Replace Every 4 Years				
Throttle Cable Play		I	I	I	I
Brakes		I	I	I	I
Brake Hose		-	-	I	I
	Replace Every 4 Years				
Brake Fluid		-	I	I	I
	Replace Every 2 Years				
Tires		-	I	I	I
Suspensions		-	-	I	I
Steering System		I	I	I	I
Chassis Bolts and Nuts		T	T	T	T
General Lubrications		-	L	L	L

Code: C ~ Cleaning (replaced if necessary) I ~ Inspection, cleaning, and adjustment
 L ~ Lubrication R ~ Replacement T ~ Tighten

Have your ATV checked, adjusted, and recorded maintenance data periodically by your TGB Authorized Dealer to maintain the ATV at the optimum condition

The above maintenance schedule is established by taking the monthly 1000 kilometers as a reference which ever comes first.

- Remarks:
1. Clean or replace the air cleaner element more often when the ATV is operated on dusty roads or in the Heavily- polluted environment.
 2. Maintenance should be performed more often if the ATV is frequently operated in high speed and after the ATV has accumulated a higher mileage.
 3. Preventive maintenance
 - a. Ignition system – Perform maintenance and check when continuous abnormal ignition, misfire, after-burn, overheating occur.
 - b. Carbon deposit removal – Remove carbon deposits in cylinder head, piston heads, exhaust system when power is obvious lower. Than ever

Fuel Lines

Remove the seat
Loosen 2 screws and 2 bolts
Remove the tank cover
Check all lines, and replace it when they are deterioration, damage or leaking

Warning

Gasoline is a low ignition material so any kind of fire is strictly prohibited as dealing it.

Acceleration Operation

Have a wide open of throttle valve as handle in any position and release it to let back original (full closed) position.
Check handle if its operation is smooth.
Check acceleration cable and replace it if deteriorated, twisted or damaged.
Lubricate the cable if operation is not smooth.
Measure the throttle lever free play in its flange part.
Remove rubber boot, loosen fixing nut, and then adjust it by turning the adjustment screw. Tighten the fixing nut, and check acceleration operation condition.

Free play: 1~3 mm.

Air Cleaner

Remove seat.
loosen 4 hooks from the air cleaner cover and then remove the cover.
Loosen the clamp strip and 1 screw of air cleaner element, and then remove the air cleaner element.
Clean the element with non-flammable or high-flash point solvent and then squeeze it for dry.

Caution

Never use gasoline or acid organized solvent to clean the element.

Soap the element into cleaning engine oil and then squeeze it out. Install the element onto the element seat and then install the air cleaner cover.

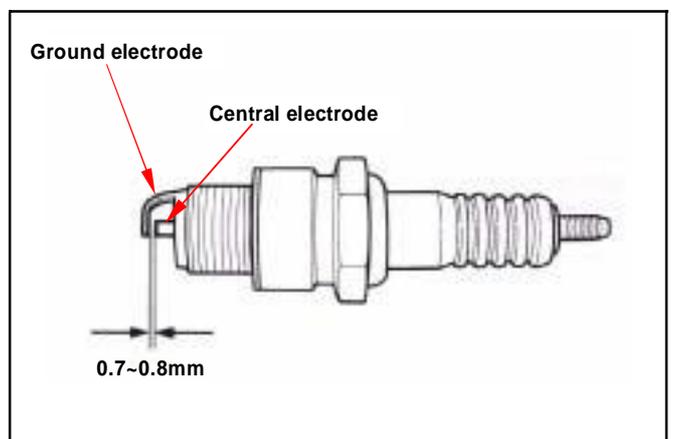
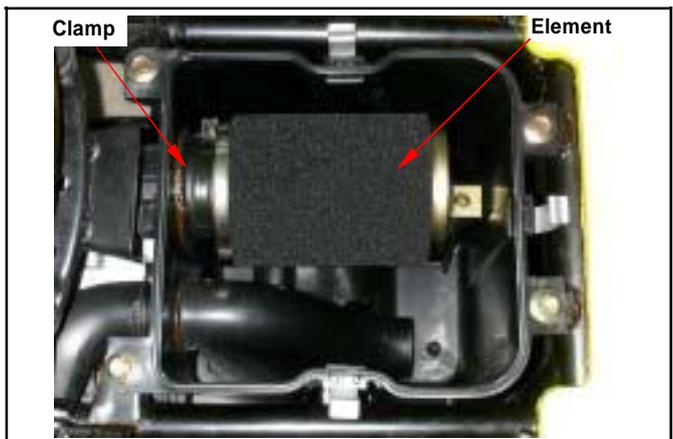
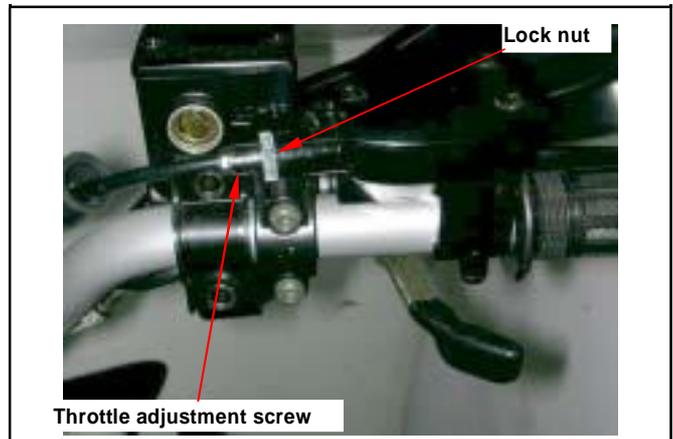
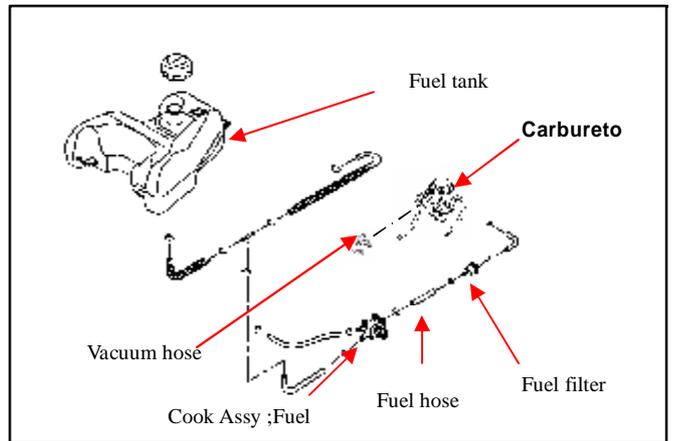
Spark Plug

Recommended spark plug: CR7E
Remove spark plug cap.
Clean dirt around the spark plug hole.
Remove spark plug.
Measure spark plug gap.

Spark plug gap : 0.7 mm

Carefully bend ground electrode of the plug to adjust the gap if necessary.
Hold spark plug washer and install the spark plug by screwing it.
Tighten the plug by turning 1/2 turn more with plug socket after installed.

Tighten torque: 1.0~1.2kgf-m



2. MAINTENANCE INFORMATION

Valve Clearance

Caution

Checks and adjustment must be performed when the engine temperature is below 35°C.

Remove front fender, fuel tank cover and fuel tank.

Remove cylinder head cover.

Turn camshaft bolt in C.W. direction and let the "T" mark on the camshaft sprocket align with cylinder head mark so that piston is placed at TDC position in compression stroke.

Caution

Do not turn the bolt in C.C.W. direction to prevent from camshaft bolt looseness.

Valve clearance inspection and adjustment. Check & adjust valve clearance with feeler gauge.

Standard Value: IN 0.10 ± 0.02 mm

EX 0.15 ± 0.02 mm

Loosen fixing nut and turn the adjustment nut for adjustment.

Caution

Re-check the valve clearance after tightened the fixing nut.



Carburetor Idle Speed Adjustment

Caution

- Inspection & adjustment for idle speed have to be performed after all parts in engine that needed adjustment have been adjusted.
- Idle speed check and adjustment have to be done after engine is being warm up. (It is enough that operates engine from stop to running for 10 minutes.)

Park the ATV with onto neutral and warm up engine.

Connect tachometer (the wire clamp of tachometer is connected to the high tension cable).

Turn the throttle valve stopper screw to specified idle speed.

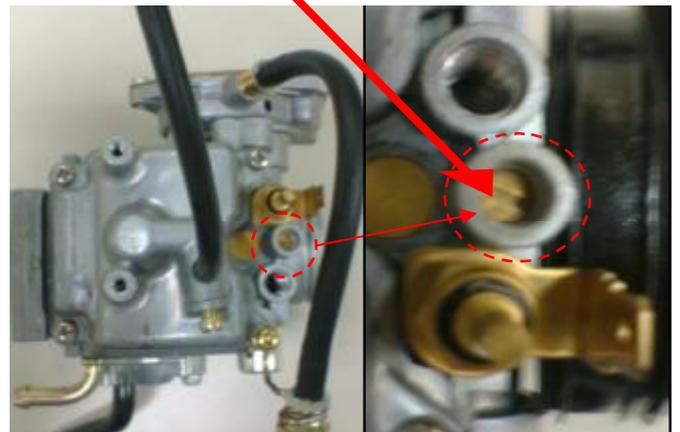
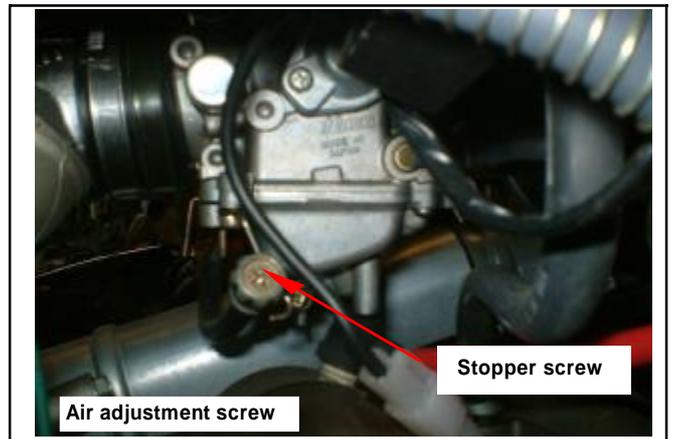
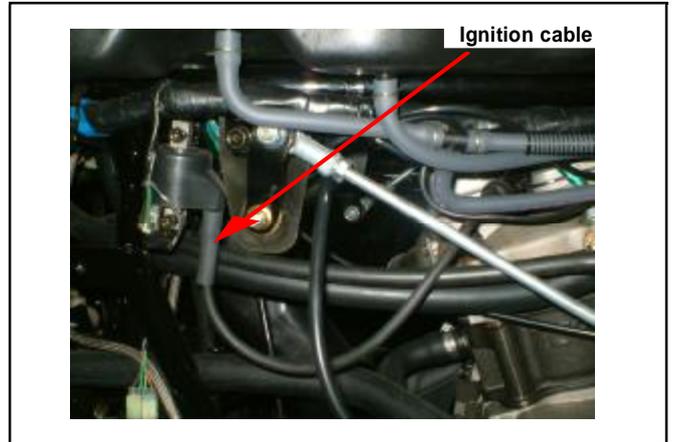
Specified idle speed: 1500 ± 100 rpm

Emission adjustment in idle speed

Warm up the engine for around 10 minutes and then conduct this adjustment.

1. Connect the tachometer onto engine.
2. Adjust the throttle valve stopper screw and let engine runs in 1500 ± 100 rpm.
3. Insert the exhaust sampling pipe of exhaust analyzer into the front section of exhaust pipe. Adjust the air adjustment screw so that emission value in idle speed is within standard.
4. Slightly accelerate the throttle valve and release it immediately. Repeat this for 2~3 times.
5. Read engine RPM and value on the exhaust analyzer. Repeat step 2 to step 4 procedures until measured value within standard.

Emission standard **CO:** below 2.5~3.5%
HC: below 2000ppm



Carburetor undersurface

2. MAINTENANCE INFORMATION

Ignition System

Caution

- C.D.I ignition system is set by manufacturer so it can not be adjusted.
- Ignition timing check procedure is for checking whether CDI function is in normal or not.

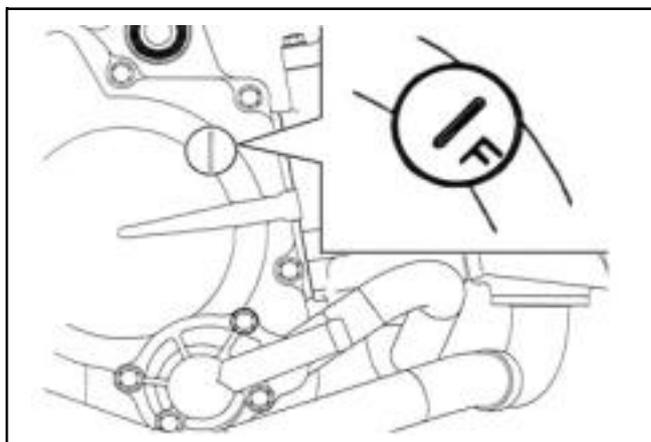
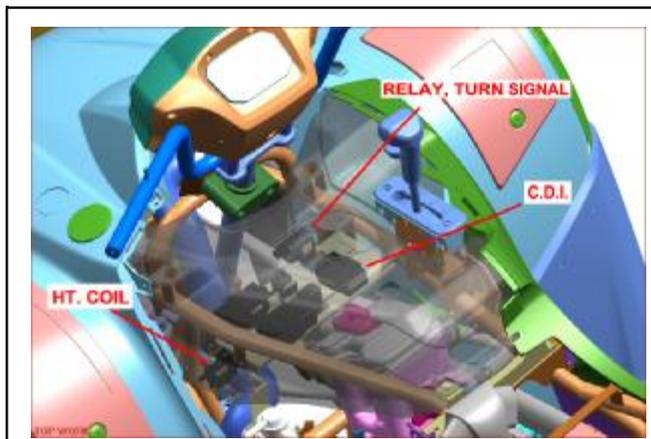
Connect tachometer and ignition light.

Start engine.

As engine in idle speed: 1600 rpm, aim at the mark "F" with the ignition light. Then, it is means that ignition timing is correct.

Increase engine speed to 6000 rpm to check ignition advance degree. If indent is located within the ignition advance degrees, it is means that the ignition advance degree is in normal.

If ignition timing is incorrect, check CDI set, pulse rotor and pulse generator. Replace it if malfunction of these parts is found.



Cylinder Compression Pressure

Warm up engine.

Turn off the engine.

Remove the trunk.

Remove the central cover.

Remove spark plug cap and spark plug.

Install compression gauge.

Full open the throttle valve, and rotate the engine by means of starter motor.

Caution

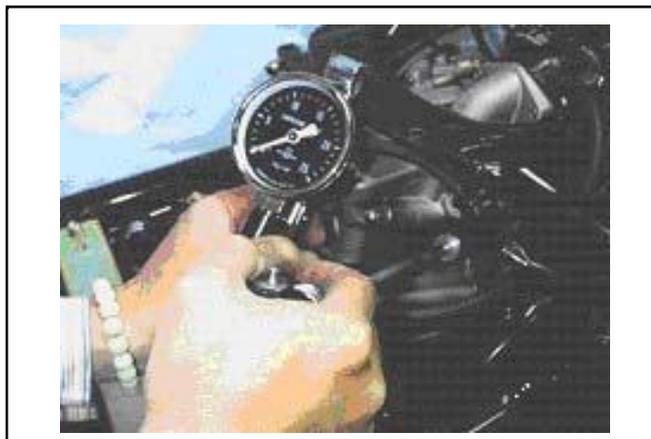
Rotate the engine until the reading in the gauge no more increasing.
Usually, the highest pressure reading will be obtained in 4~7 seconds.

Compression pressure: $9.2 \pm 2 \text{ Kg/cm}^2$

Check following items if the pressure is too low:

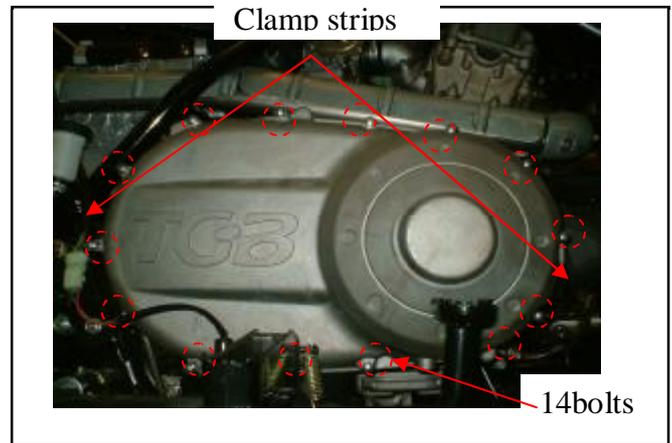
- Incorrect valve clearance.
- Valve leaking.
- Cylinder head leaking, piston, piston ring and cylinder worn out.

If the pressure is too high, it means carbon deposits in combustion chamber or piston head.



Drive Belt

Loosen the 2 clamp strips of clutch cover, and then remove the clutch cover vapor hose.
Remove 14 bolts of the clutch cover.



Check if the belt is crack or worn out.
Replace the belt if necessary or in accord with the periodical maintenance schedule to replace it.
Width limit: 26.8 mm or above

