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## **FOREWORD**

Thank you for choosing our double seat BUGGY. We hope you will have fun with it. Before you start operating on the BUGGY, please read through this Owner's Manual carefully as it contains important safety and maintenance information. Failure to follow the warnings contained in this manual can result in serious injuries.

Be sure to follow the recommended maintenance schedule and service your vehicle accordingly.

Preventive maintenance is extremely important to the longevity of your BUGGY.

Beginners should drive this BUGGY in a large open area to practice handle of this BUGGY. Protective gears should be worn at all time when driving or riding this BUGGY.

We hope you will have a pleasant experience with our products.

## **A FEW WORDS ABOUT SAFETY**

In order to keep everyone safe, you must take responsibility for the safe operation of your BUGGY. To help you make informed decisions about safety, we have provided operating procedures and other information on labels and in this manual. This information alerts you to potential hazards that could hurt you or others.

It is not practical or possible to warn you about all hazards associated with operating or maintaining a BUGGY; so you must use your own good judgment.

You will find important safety information in a variety of forms, including:

**Safety Labels** - On the BUGGY.

**Safety Messages** - Preceded by a safety alert  symbol and one of two signal words:

“WARNING”, or “CAUTION”.

**These signal words mean:**



Physical harm may result from failure to adhere to the instructions that are described within the WARNING labels.

**Safety Headings:** such as Important Safety Reminders or Important Safety Precautions,

**Safety Section:** such as Buggy Safety.

**Instruction:** how to use this BUGGY correctly and safely.

This entire manual is filled with important safety information—**please read it carefully.**

## **IMPORTANT SAFETY INFORMATION**

Your BUGGY will provide you with many years of service and pleasure providing you take responsibility for your own safety and understand the challenges you can meet while driving.

There is much that you can do to protect yourself when you drive. You'll find many helpful recommendations throughout this manual. The following are a few that we consider most important.

### **Follow the Age Recommendation**

It is strongly recommended that no one under the age of 16 be permitted to drive this BUGGY without adult supervision.

### **Always Wear a Helmet**

It's a proven fact that helmets significantly reduce the number and severity of head injuries. Always wear an approved motorcycle helmet. We also recommend that you wear eye protection, sturdy boots, gloves, and other protective gear.

### **Drive Off-Road Only without no EEC certificate**

Your BUGGY is designed and manufactured for off-road use only . The tires are not made for pavement, and the BUGGY does not have turn signals and other features required for use on public roads. If you need to cross a paved or public road, get off and walk your BUGGY across.

## **Take Time to Learn & Practice**

Even if you have driven other BUGGY, take time to become familiar with how this BUGGY works and handles. Practice in a safe area until you've built your skills and gotten accustomed to this Buggy's size and weight.

Because many accidents involve inexperienced or untrained drivers, we urge all drivers to take a training course approved by the BUGGY Safety Institute. Check with your dealer for more information on training courses.

## **Be Alert for Off-Road Hazards**

The terrain can present a variety of challenges when you drive off-road. Continually "read" the terrain for unexpected turns, drop-offs, rocks, ruts, and other hazards. Always keep your speed low enough to allow time to see and react to hazards.

## **Drive within Your Limits**

Pushing limits is another major cause of BUGGY accidents. Never drive beyond your personal abilities or faster than conditions warrant. Remember that alcohol, drugs, fatigue, and inattention can significantly reduce your ability to make good judgments and drive safely.

### **Don't Drink and Drive**

Alcohol and driving don't mix. Even one drink can reduce your ability to respond to changing conditions, and your reaction ability gets worse with every additional drink. So don't drink and drive, and don't let your friends drink and drive either.

### **Do not operate this BUGGY at night**

Dark vision can greatly reduce a driver's visibility and judgment. So driving at night is dangerous and can increase possibility for accident.

### **Never run your BUGGY indoors**

The exhaust from the engine contains a tasteless, odorless and poisonous gas called carbon monoxide.

### **Keep away from moving parts of the BUGGY**

The operator of the BUGGY should never place their hands or other parts of their body near any moving part of the BUGGY. Failure to adhere to this warning will cause physical harm to your body.

## **Skidding or Sliding**

The terrain surface can be a major factor affecting turns. Skidding a turn is more likely to occur on slippery surfaces such as snow, ice, mud and loose gravel. If you skid on ice, you may lose all directional control. To avoid skidding on slippery terrain, keep your speed low and drive carefully.

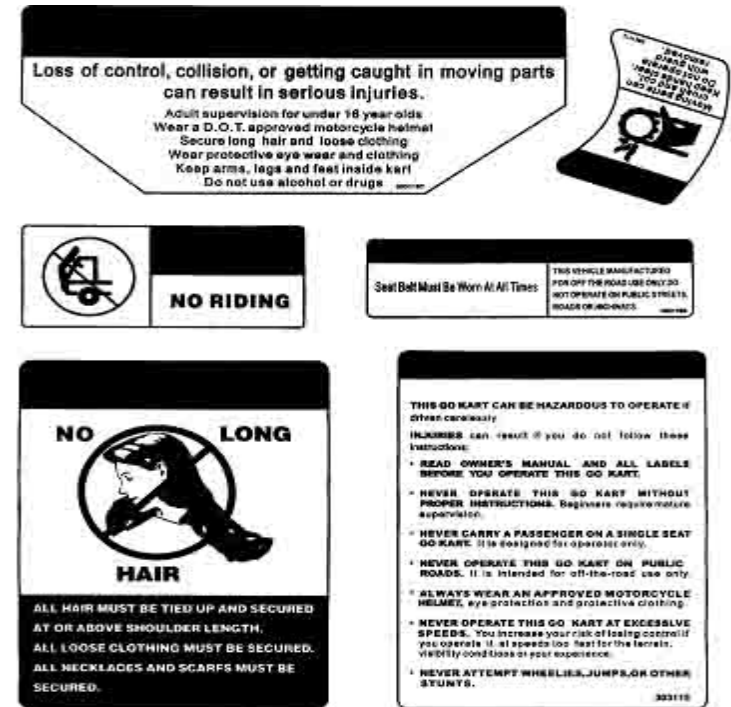
This section presents some of the most important information and recommendations to help you drive your BUGGY safely. Please take a few moments to read these pages.

## SAFETY LABELS

The labels should be considered permanent parts of the BUGGY. If a label comes off or becomes hard to read, contact your dealer for warning labels replacements.

## ARE YOU READY TO DRIVE?

Before each drive you need to make sure you and your BUGGY are both ready to drive. To help you get prepared, this section discusses how to evaluate your driving readiness, what items you should check on your BUGGY, and adjustments to make for your comfort, convenience and safety.



Before you drive your BUGGY for the first time, we urge you to:

- Read this owner's manual and the labels on your BUGGY carefully;
- Make sure you understand all the safety messages;
- Know how to operate all the controls;
- Have adult present if under 16 years old.

Before each drive, be sure:

- You feel well and are in good physical and mental condition;
- You are wearing an approved motorcycle helmet (with chin strap tightened securely), eye protection, and other protective clothing;
- You don't have any alcohol or drugs in your body system.

## **Protective Apparel**

For your safety, we strongly recommend that you always wear an approved motorcycle helmet, eye protection, boots, gloves, long pants, and long-sleeved shirt or jacket whenever you drive.

Although the complete protection is not possible, wearing proper gear can reduce the chances of injuries

when you drive.

The following suggestions will help you choose the proper driving gears.

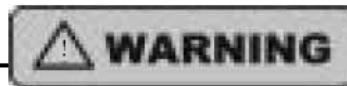
## **Helmets and Eyes Protection**

Your helmet is your most important piece of driving gear because it offers the best protection against head injuries. A helmet should fit your head comfortably and securely.

An open-face helmet offers some protection, but a full-face helmet offers more.

Regardless of the style, look for a DOT (Department of Transportation) sticker in any helmet you buy.

Always wear a face shield or goggles to protect your eyes and help your vision.



**Operating this BUGGY without wearing an approved motorcycle helmet, eye protection, and protective clothing could increase your chances of head and/or eye injury, possibly death in the event of severe accident.**

**Always wear approved motorcycle helmet that fits properly and wear eye protection (goggles or face shield), gloves, boots, long-sleeved shirt or jacket and long pants.**

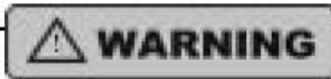
## Additional Driving Gears

In addition to a helmet and eye protection, we also recommend:

- Sturdy off-road motorcycle boots to help protect your feet, ankles, and lower legs.
- Off-road motorcycle gloves to help protect your hands.
- Driving pants with knee and hip pads, a driving jersey with padded elbows, and a chest and shoulder protector.

## Driver Training

Developing your driving skills is an on-going process. Even if you have driven other Buggies, take time to become familiar with how this BUGGY works and handles. Practice driving the BUGGY in a safe area to build your skills. Do not drive in rough terrain until you've gotten accustomed to the BUGGY's controls, and feel comfortable with its size and weight.



**Operating this BUGGY without proper instruction could increase your risk of an accident that could lead to serious injury or death.**

## Age Recommendation

It is strongly recommended that no one under the age of 16 be permitted to operate this BUGGY without adult supervision.



**A child driving a BUGGY that is not recommended for his/her age could lose BUGGY control and result in severe injury or death.**  
**A child under 16 should have adult supervision when operate on the BUGGY.**

## No Alcohol or Drugs

Alcohol, drugs and Buggies don't mix. Even a small amount of alcohol can impair your ability to operate a BUGGY safely. Likewise, drugs---even if prescribed by a physician---can be dangerous while operating a BUGGY. Consult your doctor to be sure it is safe to operate a vehicle after taking the medication.



**Operating this BUGGY after consuming alcohol or drugs can seriously affect your judgment, cause you to react more slowly, affect your balance and perception, and could result in serious injury or death.**  
**Never consume alcohol or drugs before or while operating this BUGGY.**

## **IS YOUR VEHICLE READY TO DRIVE?**

Before each drive, it is important to inspect your BUGGY and make sure any problems you've found are corrected. A pre-drive inspection is a must, not only for safety, but because having a breakdown, or even a flat tire, can be a major inconvenience.

If your BUGGY has overturned or has been involved in a collision, do not drive it until your BUGGY has been inspected by your dealer. There may be damages or other problems you can't see.



Improperly maintaining this BUGGY or failing to correct a problem before driving can cause a crash in which you can be seriously hurt or killed.

Always perform a pre-drive inspection before every drive and correct any problems.

### **Pre-drive Inspection**

Check the following items before you get on the BUGGY:

- *Engine Oil:* Check the level and add oil if needed. Check for leaks.
- *Fuel:* Check the level and add fuel if needed. Also make sure the fuel filling cap is securely fastened. check for leaks.
- *Tires:* Use a gauge to check the air pressure. Adjust if needed. Also look for signs of damages or excessive wear.
- *Nuts & Bolts:* Check the wheels to see that the axle nuts are tightened. Use a wrench to make sure all accessible nuts, bolts, and fasteners are tight.
- *Underbody & Exhaust System:* Check for and remove any dirt, vegetation or other debris that could be fire hazard or interfere with the proper operation of the BUGGY.
- *Air Cleaner Housing Drain Tube:* Check for carbon deposits in the drain tube. If necessary, clean the tube and check the air cleaner housing.
- *Leaks, Loose Parts:* Walk around your BUGGY and look for anything that appears unusual, such as a leak or loose cable.
- *Lights:* Make sure the headlight, brake light and taillight are working properly.
- *Throttle:* Check the free play and adjust it if needed; press the throttle to make sure it moves smoothly without sticking, and snaps back automatically when it is released.
- *Brakes:* Press the rear brake pedal several times, and check for proper brake pedal free play; make

sure there is no brake fluid leakage.

- *Engine Stop Button*: When engine is running, press and hold the Engine Stop Button for two seconds to make sure the engine stops.
- *Steering Wheel*: Check that the wheels turn properly as you turn the steering wheel.
- *Cable*: Check the cable housing for wear and the fittings for looseness, replace or tighten them if needed.
- Add water:
  1. Confirm joints of water pipes have been installed correctly firstly. Open the water filling cover to fill water until it is full.
  2. Start the engine after adding water completes. Rotate speed of the engine shall be controlled under 4500RPM. Until warming-up finishes, bubble appears on the water filling opening and the water level begins to reduce, at the same time, antifreezer shall be filled. After several times filling, no bubbles occurs, and add more water until it is full, then close the water filling cover.
  3. Add specified antifreezer into the auxiliary water tank, with water level between the lower and upper marks.
  4. Caution: the outlet water pipe is located at upper locations of the water tank and the return water

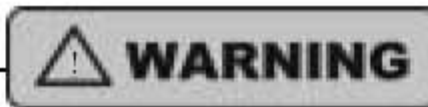
pipe is located at lower locations of the water tank, therefore, start the engine after water filling.

## **SAFE DRIVING PRECAUTIONS**

### **Off-Road Use Only**

Your BUGGY and its tires are designed and manufactured for off-road use only, not for pavement.

Driving on pavement can affect handling and control. You should not drive your BUGGY on pavement.



**Operating this BUGGY on paved surfaces may seriously affect handling and control of the BUGGY, and may cause the vehicle to go out of control.**

**Never operate the BUGGY on any paved surfaces, including sidewalks, driveways, parking lots and streets.**

When driving off-road, also remember to always obey local off-road driving laws and regulations. Obtain permission to drive on private property. Avoid posted areas and obey "no trespassing" signs.

You should never drive your BUGGY on public streets, roads or highways, even if they are not paved.

Drivers of street vehicles may have difficulty seeing and avoiding you, which could lead to a collision. In many states it is illegal to operate Buggies on public streets, roads and highways.

 **WARNING**

**Operating this BUGGY on public streets, roads or highways can cause collision with other vehicles. Never operate this BUGGY on any public streets, roads or highways, even dirt or gravel.**

### **Keep Hands and Feet on Controls**


Always keep both hands on the steering wheel and both feet on the foot controls when driving your BUGGY. It is important to maintain your balance and to control the BUGGY. Removing hands or foot away from the controls can reduce your ability to react control of the BUGGY.

 **WARNING**

**Removing hand from Steering wheel or feet from foot controls during operation can reduce your ability to control the BUGGY or could cause you to lose your balance and fall off the BUGGY. Always keep both hand on the steering wheel and both feet on the foot controls of your BUGGY during operation.**

## Control Speed

Driving at excessive speed increases the chances of an accident. In choosing a proper speed, you need to consider the capability of your BUGGY, the terrain, visibility and other operating conditions, plus your own skills and experience.

**WARNING**

**Operating this BUGGY at excessive speed increases your chances of losing control of the BUGGY, which can result in an accident.**

**Always drive at a speed that is proper for your BUGGY, the terrain, visibility and other operating conditions, and your experience.**

## Use Care on Unfamiliar or Rough Terrain

Before driving in a new area, always check the terrain thoroughly. Don't drive fast on unfamiliar terrain or when the visibility is limited. (It's sometimes difficult to see obstructions like hidden rocks, bumps, or

holes in time to react.)

 **WARNING**

Failure to use extra care when operating this BUGGY on unfamiliar terrain could result in the BUGGY overturning or going out of control.  
Go slowly and be extra careful when operating on unfamiliar terrain. Always be alert to changing terrain conditions when operating the BUGGY.

Never drive past the limit of visibility. Maintain a safe distance between your BUGGY and other off-road vehicles.

Always exercise caution and use extra care on rough, slippery and loose terrain.

 **WARNING**

**Failure to use extra care when operating on excessively rough, slippery or loose terrain could cause loss of traction or vehicle control, which could result in an accident, including an overturn. Do not operate on excessively rough, slippery or loose terrain until you have learned and practiced the skills necessary to control the BUGGY on such terrain. Always be especially cautious on these kinds of terrain.**

## **Do Not Perform Stunts**

You should always operate your BUGGY in a safe and reasonable manner. When driving, always keep all four wheels on the ground.



**Attempting wheelies, jumps, and other stunts increases the chance of an accident, including an overturn. Never attempt stunts, such as wheelies or jumps. Don't try to show off.**

## **SPECIFICATIONS**

### **DIMENSIONS**

Overall Length	2485mm
Overall Width	1480mm
Overall Height	1500mm
Wheelbase	1605mm

### **ENGINE**

Model	172MM
Type	Forced water-cooled, single cylinder, 4-Stroke
Engine Capacity	250cc
Bore × Stroke	72mm × 60mm
Compression Ratio	10 : 1
Max Power	12.5.0kw / 7000rpm

Standard Power	10.5kw/ 6500 rpm
Max Torque	17.6N.m/5500 rpm
Idling Speed	1500 ± 100rpm
Min Fuel Consumption	354g/KW.h
Fuel Type	SAE 90# or above (unleaded)
Lubricate Oil	SAE 10W/30SF
Displacement	244ml
Ignition	C.D.I.
Starting	Electric
Spark Plug	D7
Clutch	Automatic, Centrifugal, Dry, Shoe type
Generator	Outer Rotor, Flywheel
Carburetor	Vacuum Film type
Lubrication	Pressure & Splash
Air Cleaner	Paper Element, Filtration type
Transmission	Automatic (C.V.T system)
Gear-shifting	Automatic, Centrifugal

Primary Transmission Ratio	2.2-0.9
Reduction Ratio	6.6
Cooling	Water-cooled
Cooling Fluid	Anticorrosive, Anti-freeze
Size	422mm × 430mm × 527mm
Net Weight	31.5 kg

## **CAPACITIES**

Fuel tank	9.5L
Starting	Electric
Top speed	65km/h

## **CHASSIS**

Brake system	Hydraulic disc, left foot control
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## **TIRE PRESSURE**

Front	175kpa
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Rear 200kpa

## **WEIGHT**

Net Weight 325kg

## **OPERATION**

### **A. Operation controls**

**WARNING** - Do not attempt to start or operate the engine until completely familiar with the location and use of each control necessary to operate this vehicle. The operator must know how to stop this machine before starting and driving it.

#### **a. Throttle**

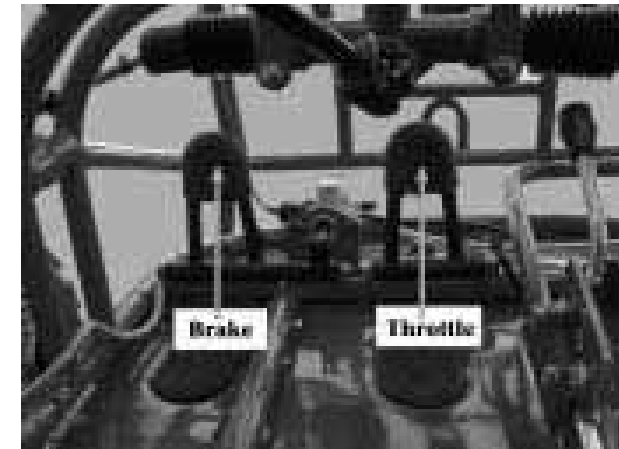
The right foot pedal is the throttle that controls the BUGGY speed. As the engine speed is above idle, the clutch automatically engages and moves the vehicle forward. To disengage the clutch at any time, allow the throttle to return to the idle position.

 **WARNING**

**Each time prior to starting the engine, check the throttle assembly to ensure that when pedal is pushed all the way forward the assembly is working smoothly and returns to idle when released. Do not operate if pedal or engine throttle linkage fail to return to idle. If unable to correct the problem through lubrication, adjustment or replacement of worn parts, contact your dealer for assistance.**

**b. Brake**

The brake is located on the left side of the vehicle. Applying pressure to the pedal draws the brake calipers around the brake pumps (one at the rear wheel, two at the front wheel) and slows or stops the kart.



**c. Key Switch**

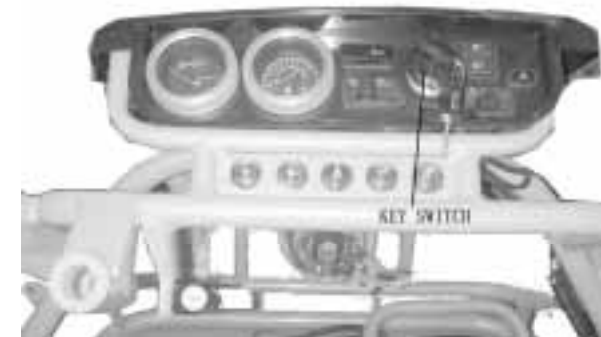
Insert the key into the key switch, turn the key clockwise, and release the key when the engine starts. The engine will warm up within 5 minutes and the engine choke would close automatically and operate

at normal RPM (Warning: Don't crank starter more than 5 seconds at one time).

#### **d. Engine Stop Button**

Important-----stop button test.

Before driving this vehicle, test the Engine Stop Button to assure that it is operating properly. With the engine running, move the Stop Button to the "OFF" position.



### **B. Pre-Drive Inspection**

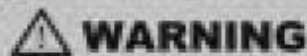


**Perform this pre-drive inspection everyday before driving vehicle. If not performed, serious damage to the vehicle or personal injury may result.**

- a. Check for Engine Oil Level. Check for leaks, add oil if required.
- b. Check for Fuel Level. Add fuel if necessary and do not overfill. Check for leaks.
- c. Check for Brakes. Depress the rear brake pedal several times, and then check for proper brake pedal

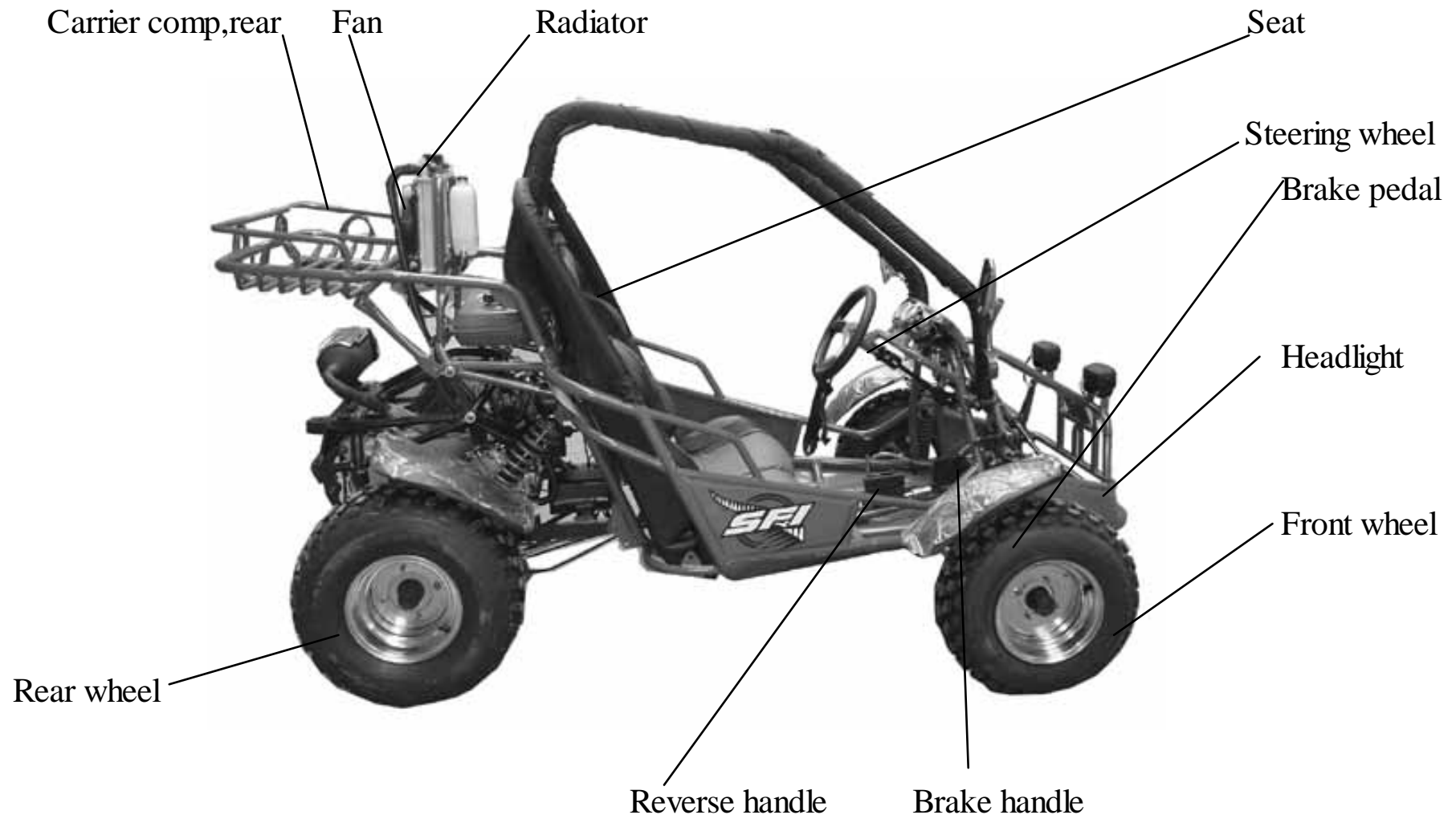
free play. Make sure there is no brake fluid leakage. Adjust if necessary.

- d. Check Tires. Check tires condition and pressure. The pressure on both Front and Rear tire is 15kPa and 20kPa.
- e. Check Drive Chain. Check for chain's condition and tension. Lubricate if necessary.
- f. Check Throttle. Check for smooth operation. Assure throttle "snaps" back to idle.
- g. Check Engine Stop Button. Perform engine stop button test. Repair if necessary.
- h. Check all Nuts, Bolts, and fasteners. Check wheels to see that all axle nuts are tightened properly. Check and tighten if necessary all other fasteners to specified condition.
- i. Check Roll Cage Bar. Ensure all protective roll cage bar are in place before operating the BUGGY.
- j. Check Brake Light. Check for proper operation.
- k. Check Wheels. Check for tightness of wheel nuts and axle nuts; check that axle nuts are secured by cotter pins.
- l. Check Steering. Check for free operation for any unusual looseness in any area.

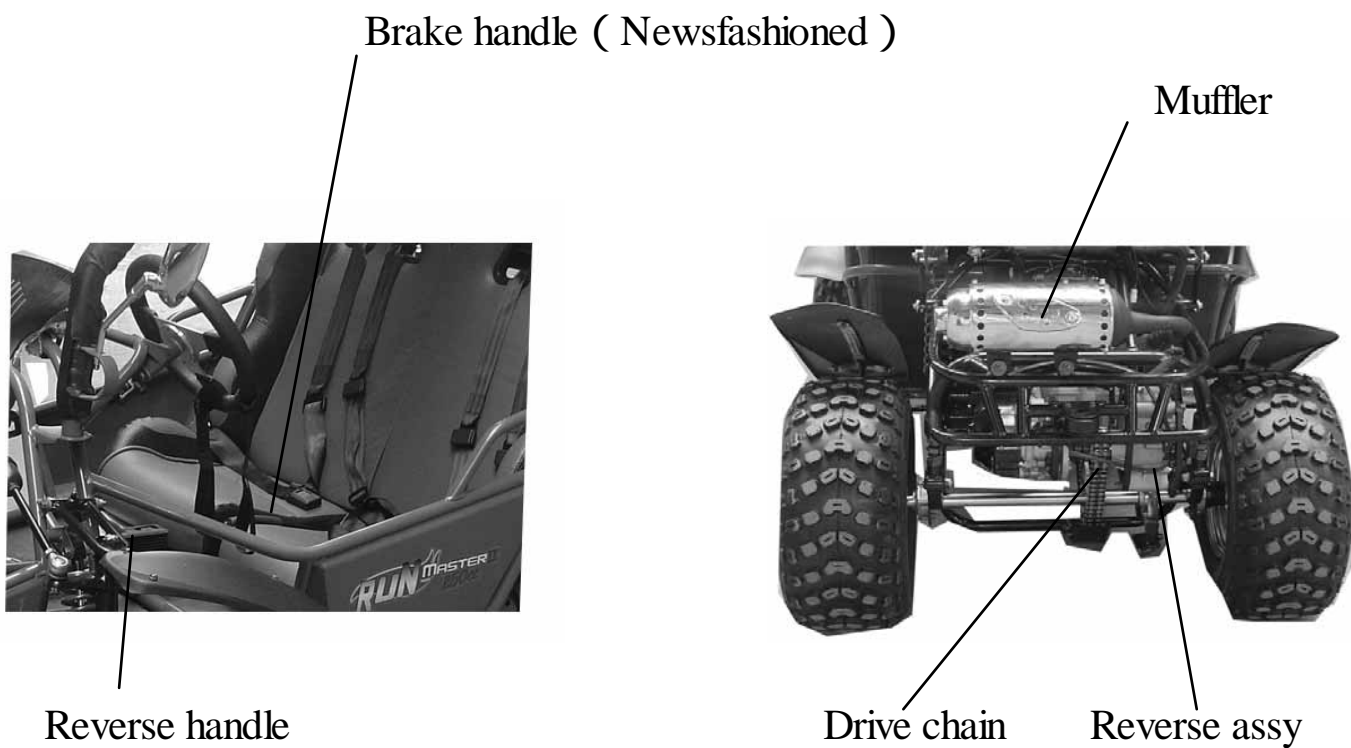


**Always follow rules for safe operation and wear a helmet.**

( double-seat )



**(double -seat)**



### **C. Preparation Before Starting The Engine**

- (1) Check the engine fasteners before starting.
- (2) Fill in fuel, lubrication oil and anticorrosive antifreeze as specified.

Oil Capacity: Crankcase: 1.0 L; Transmission box: 0.2 L

Anticorrosive antifreeze capacity: Radiator: 750cc; Reserved water tank: 300cc; Total: 1050cc

Way of adding antifreeze:

- a) Remove the radiator cover and add antifreeze to the top.
- b) Fasten the radiator cover.
- c) Start the vehicle.
- d) Stop the vehicle when the water temperature reaches 80 .
- e) Open the radiator cover 5 min after stopping the engine. Fill in cooling fluid to the top. Fasten the radiator cover.
- f) Repeat c), d), e) steps to re-add the cooling fluid for the third time. The total quantity of the antifreeze added is 1190cc.
- g) Remove the spark plug and check the spark.

**WARNING**

**Don't open the water tank cap when the engine temperature is high. Otherwise, the jetting of the hot water may cause injuries**

## **D. Passengers**

The vehicle allows for two riders only for the double seat unit and one rider only for the single seat unit. Combine maximum weight of driver and the passenger for the double seat unit should not exceed 180kg or 400lbs. Combine maximum weight of driver and the passenger for the single seat unit should not exceed 90kg or 200lbs

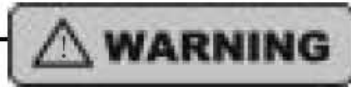
## **E. Seat Adjustment**

The seat must always be securely fastened in the position which best affords the operator control of the foot pedals, steering wheel, and the engine stop button.

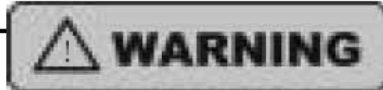
- a. Pull seat adjustment handle upward to disengage seat slide.



- b. Move seat to desired position.
- c. Be sure seat adjustment handle snaps back into place and that seat is locked into position.



Before attempting to adjust the seat ensure that engine of BUGGY is stopped.



Never operate this BUGGY when the provided seat is not securely fastened. To do so could result in a strong possibility of severe personal injury or loss of life. Before attempting to adjust the seat ensure that engine of BUGGY is stopped.

## **F. Starting and Operating Instructions**

- a. Before starting the engine, be sure that the driver is seated properly in the BUGGY and tighten the seatbelt.
- b. Test the BUGGY in the beginning to learn how to start, turn and stop.
- c. Operate the BUGGY slowly until you are familiar with it.

- d. The turning radius of this BUGGY is small and agile, so the centrifugal force is very high when turning at high speed. Slow down to a more controllable speed when turning to prevent the BUGGY from rolling over.
- e. To prevent vehicle from rolling over, be sure to only turn the vehicle at a slow more controllable speed, heel on the ramp of the main board when turning. If you keep your leg on the foot pedal, you can feel the vehicle is stable because of the gravity is adjusted and it won't roll over.

## **G. Starting the Engine**

- (1) Check if the fuel line is smooth.
- (2) Check if the ignition system is working.
- (3) Press the starting button when the throttle is closed.
- (4) Warm up the engine for 2-3 min after starting the cold engine.

Note:

- (1) Release the button and cut the power of the starting motor immediately after starting the engine.
- (2) Don't press the starting button after starting the engine. Otherwise it may cause damages to the engine.
- (3) Don't press the button for more than 3-4 seconds one time. Wait for about 10 seconds to repress.

Press the button with the throttle slightly opened.

- (4) In cold weather, warm up the engine for several minutes at the idle speed. Then speed up after the operation temperature is reached.
- (5) In hot weather, avoid running the engine at the idle speed for a long time. It may overheat the engine.

## **H. Stopping the Engine**

- (1) Run the engine for about 3-5 min at the idle speed to cool down.
- (2) Turn off the throttle.
- (3) Turn off the ignition switch.

## **I. Running-in of the New Engine**

The running-in distance is 1000km. During this period, please follow the following instructions.

- (1) Run the engine according to the requirements for the running-in engine.
- (2) Rotate the throttle slowly after starting the engine. Don't speed up or speed down suddenly.
- (3) Drive on the smooth roads. Don't drive uphill or on rough roads for a long time.
- (4) Keep the oil lines smooth.

- (5) Avoid speeding up suddenly or running the engine at a high speed without loading.
- (6) Maintain the vehicle according to service intervals. Repair as soon as possible if necessary.
- (7) After the running-in period, clean the crankcase and replace oil; remove the carbon on the top of the piston and in the combustion chamber; adjust the spark plug electrode gap and valve clearance; check if the oil lines are smooth; Maintain the whole vehicle according to the requirements specified in the Owner's Manual.

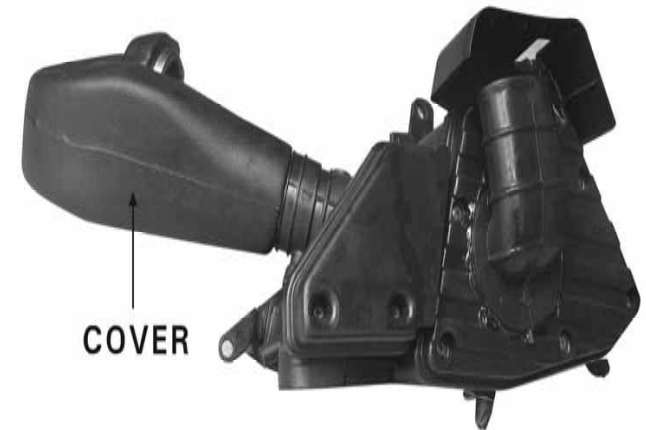
## SERVICE INSTRUCTIONS

### A. Service Air Cleaner

Service air cleaner every 20 hours

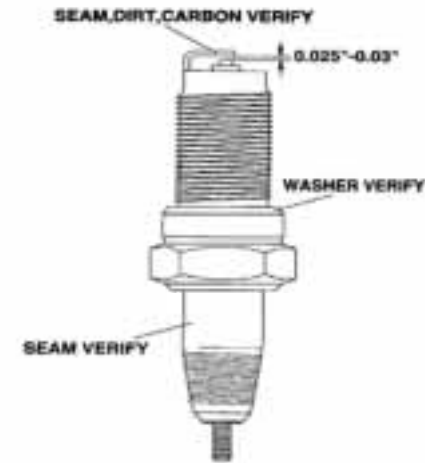
NOTE: Service more often under dusty conditions.

- a. Remove cleaner cover.
- b. Remove air cleaner element.
- c. Fill the non-flammable cleaning agent into a basin and dip the element in it.
- d. Dry it after cleaning. Dip it into the engine oil specified by the manufacture and dry again.



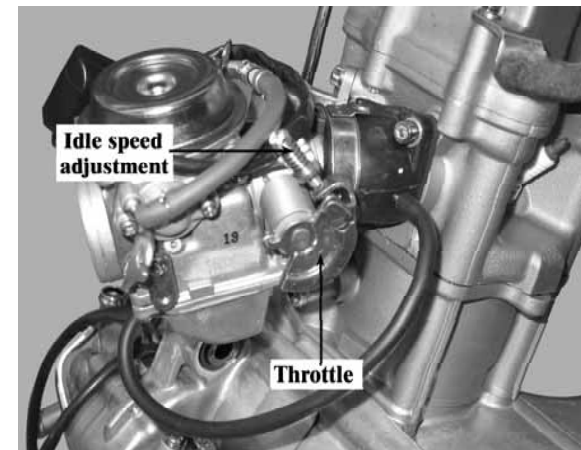
## B. Spark Plug

- a. Remove the spark plug and inspect it each time you change the oil. (Use a spark plug wrench) The electrodes should be kept clean and free of carbon. The presence of carbon or excess oil will greatly reduce proper engine performance. If possible, check the spark plug gap (area between electrodes) using a wire feeler gauge. This specification is 0.025"~0.030".
- b. Before installing spark plug coat threads lightly with graphite grease if possible, to ensure easy removal next time the spark plug needs inspection.
- c. It is advisable to replace the spark plug at least once a year to insure easy starting and good engine performance.



## C. Carburetor Adjustment

Never make unnecessary adjustments. The factory recommended settings are correct for most applications. It's not necessary to disassemble the screw unless the carburetor needs to be replaced.



Prepare a 50r/w tachometer before adjustment.

- a. Warm up the engine (5~10 min)
- b. Tighten the airscrew gentle. Back out 2-3/8 turns counter clockwise.
- c. Connect the tachometer, adjust the throttle to limit the idle speed. The standard value is (1700 RPM).
- d. Turn the airscrew counter clockwise slowly and observe the RPM of the engine, stop adjusting as the RPM reaches the top speed.
- e. Adjust the screw and adjust the idle speed to an ideal value.
- f. Repeat step 4 and 5 until the rotate speed of engine stables.

## **D. Cleaning Instructions**

Keep your vehicle clean. With a clean rag, wipe off the dirt and oil from around controls. Wipe off any spilled fuel and oil. Keep the engine clean of foreign objects and be sure to check that water tank fan is free of debris for proper cooling.

## **E. Vehicle Lubrication**

Lubricate the vehicle every 90 days of use. Apply several drops of oil in the specific points.

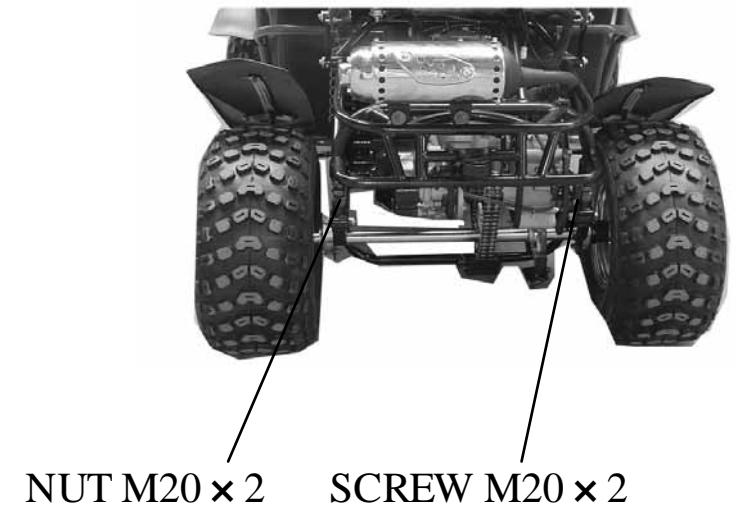
## F. Chain Lubrication

To increase chain life, it should be lubricated with a spray on type chain lubricant.

## G. Chain Adjustment

Check the chain adjustment after first two hours of use. Readjust if it has more than 1/2" flex.

- a. Unscrew the eight nuts M20 × 2 of swing arm comp using spanner 32.
- b. Adjusting apart two screw M20 × 2 until the chain reaches appropriate tightness.
- c. Screw the eight nuts M20 × 2.



## H. Adjustment of Front Shock

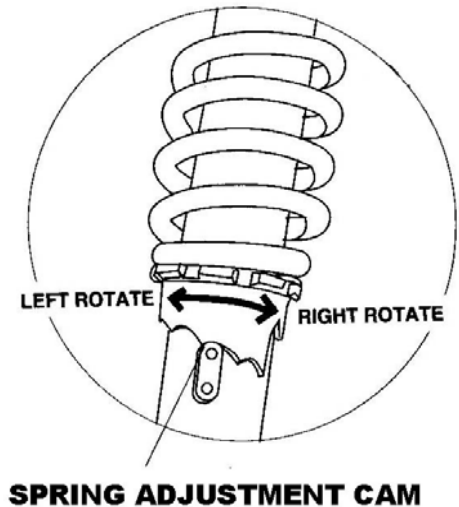
There are five adjustable positions on each shock. The default position is in the middle set by manufacturer.

Use a round nut wrench as you adjust the shock. The tension of shock spring will increase as you screw to the left. Decrease as you screw to the right.

## I. Storage Instructions

In the event your vehicle is not to be operated for periods in excess of 30 days or at the end of each driving season prepare for storage as follows:

- a. Drain fuel tank and carburetor by allowing engine to run out of fuel, or use a fuel stabilizer.
- b. Lubricate engine cylinder by removing the spark plug and pour one ounce of clean lubricating oil through the spark plug hole into the cylinder. Crank the engine slowly to spread oil and replace the spark plug.
- c. Do not save or store gasoline over winter. Using old gasoline, which has deteriorated from storage, will cause hard starting and affect engine performance.



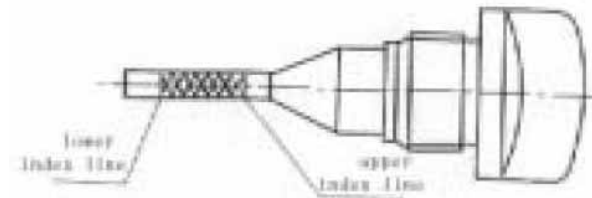


Do not drain fuel while engine is hot. Be sure to move BUGGY outside before draining fuel.

## J. Engine Maintenance

### (1) Daily Maintenance

- a) Remove the dust and dirt on the surface.
- b) Check all the exterior fasteners at the joints. Fasten or replace if necessary.
- c) Check the oil leakage and the compression at the mating surface
- d) Check the engine oil. Add if necessary. The oil level should be between the upper index line and the lower index line of the gauge.



### (2) 50 Hours Maintenance

- a) Finish the daily maintenance.

- b) Remove the dust in the air cleaner element. (Don't dip in water or oil.) Replace if dust is too much or if there is damp.

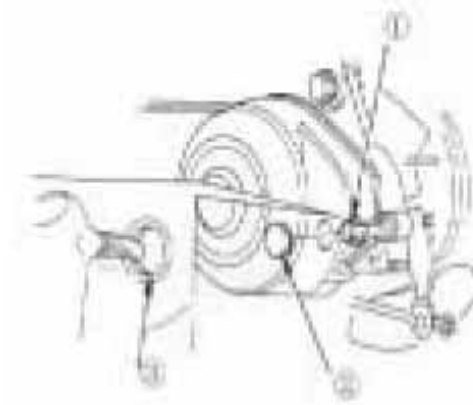
Note: Don't apply any lubrication oil or any other oil on the element. Otherwise it may cause damage to the transmission belt.



**WARNING**

**Don't clean the element with gasoline or solvent of low flash point.**

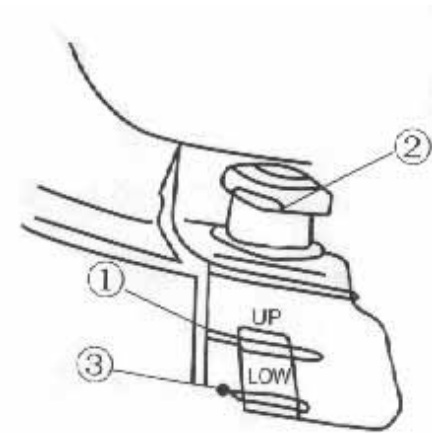
- c) Remove the carbon on the spark plug.  
d) Clean the crankcase and replace the oil.  
e) Clean the transmission box and replace the gear oil.
- Remove the cap (2).
  - Remove the filling bolt (1).
  - Remove the drain bolt (3).



Note: When you drain oil, the engine should be at some temperature, which will ensure that the oil will drain quickly and completely.

f) Check the cooling devices:

- Check if the water tank and the water pipe leak.
- Check if the water in the subsidiary water tank is between the upper limit (1) and lower limit (3). If water is insufficient, please open the cap (2) and add water to the upper limit.



(3) 100 Hours Maintenance

- Finish the 50 hours maintenance.
- Remove the cylinder cover and cylinder body and remove the carbon on the cylinder cover, cylinder body, the piston top and the in/ex valve, etc.
- Clean the inner part of the crankcase. Rotate the crankshaft during the cleaning to clean the main bearing and con'rod big end needle bearing.
- Check if the fixed screw of the generator stator is loose. Keep the connectors and electric parts dry and clean.

(4) 150 Hours Maintenance

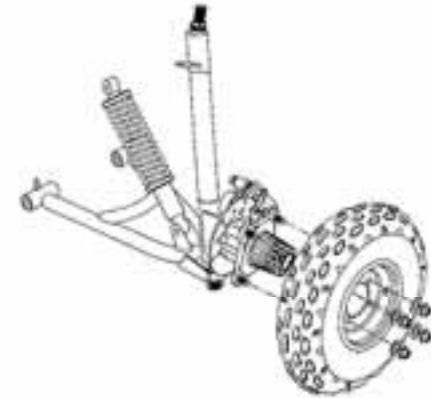
- a) Finish 100 hours maintenance.
- b) Clean the crankcase and replace oil.
- c) Check if the oil seals leak. Replace if necessary.

(5) 300 Hours Maintenance

- a) Finish 150 hours maintenance.
- b) Check if the parts of the clutch and the transmission are normal. Adjust or replace if necessary.

(6) 500 Hours Maintenance

- a) Finish 300 hours maintenance.
- b) Disassemble the engine (except the crankshaft con'rod).  
Check the parts for wear. Repair or replace if necessary.
- c) Replace the cooling fluid.

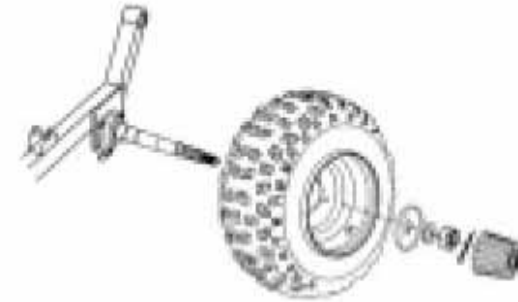


**REPAIR**

**A. Front Wheel Replacement**

**Do not disassemble the castle nuts when you replace the front wheels.**

It is only necessary to tighten the nuts so that the wheel turns freely on the axle with minimum endplay. Tighten the nuts after replacing the wheels.



**B. Rear Wheel Replacement**

**Do not disassemble the castle nuts when you replace the rear wheels.**

It is only necessary to tighten the nuts so that the wheel turns freely on the axle with minimum endplay. Tighten the nuts and put on the cotter Pin after replacing the wheels.

## PERIODICAL CHECK AND SERVICE

The maintenance intervals in the following table are based upon average riding conditions. Riding in unusually dusty areas require more frequent servicing

Items	First week	Monthly	Quarterly	Yearly
Tire pressure/wear, Brake performance, Tightness of screws	I	I		
Air cleaner		C	C	I
Carburetor	I	A		C
Spark plug			C, A	
Drive chain	I	I	C, A, L	
Brake fluid			I	
Replace gearbox oil		I	R	
Chassis		C, I	L	
Fuel switch/fuel tank				C
Battery	I		I	
Engine oil		R		
Valve clearance of engine			A	

A: adjust C: clean I: inspect, clean or replace if necessary. L: lubricate R: replace

Circuit diagram

