Preface

Dear user:

Thank you for your selection of our Nitro Motors 110cc Tractor

Our Nitro Motors 110cc Tractor car designed with the latest technology is suitable for recreation and competition. It is equipped with single-cylinder 4-stroke air-cooled engine and convenient electric start. It is fixed with front and rear shock absorber to improve comfort during driving. Its front wheel is fixed with drum type brake and its rear wheel with top quality hydraulic disk type brake to render safe and reliable braking.

The Nitro Motors 110cc Tractor is deluxe, artistic, dynamic, and attractive.

Most of the frame is of steel tube structure. During driving, please take care of safety.

We warmly welcome your opinions and suggestion on design and workmanship.

This instruction outlines the basic structure, safe driving, operation, maintenance and main technical parameters of Nitro Motors 110cc Tractor and should be carefully read. In order to make the car durable and prolong its service life, please carefully follow the instruction.

The Nitro Motors 110cc Tractor will be subjected to continuous improvement without notice.

Note

- For the Nitro Motors 110cc Tractor merely one driver and load up to 100kg are allowed and over-load would make the car out of control.
- Any one below 16-age is not allowed to drive the car.
- During driving, please wear safety cap and clothes and other protective goods.
- Any one after drinking or taking drug shall not drive the car.
- The Nitro Motors 110cc Tractor may be fixed with 50cc 、90cc and 110cc engine. Please carefully read the instruction.

Important

- Not drive the car in highway.
- Failure to follow the instruction would result in accident or damage of car or its components.
- Not drive the car before understanding its performance or let anyone drive the car who is unable to drive it.
- The instruction is an integral part of the car and shall be accompanied with the car when it is transferred to other person.
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Preface

1. Safe driving of car

Important

During driving, please obey state regulations on traffic safety and traffic management. The car shall be driven only after inspection. The car is merely allowed to drive in non-traffic field and shall not be driven in highway.

1.1 Rules of safe driving

- Before starting of engine, the car shall be thoroughly checked to avoid accident or damage of components.
- The car shall be driven in accordance with state and local regulations on traffic safety and traffic management.
- During driving, not wear clothes of loose sleeves or bottoms.
- Not very close to other motor vehicles.
- Never cut in during driving.
- The speed shall be strictly controlled depending on road conditions, since many accidents happen due to over-speed.
- Be careful when passing intercross, entrance and exit of park or lane.
- During driving, tightly hold the steering handle to control the driving direction.
- During driving, place feet on the pedal as far as possible. The left hand and the rear braking handle as well as the right hand and the front braking handle shall be kept at a given position for correct acceleration, deceleration and braking.
- For your safety, please wear safe cap, protective clothes, protective glasses and gloves.

1.2 Modification of car

- Modification of car shall not be allowed.
- Please let us know your suggestion on improvement.

1.3 Loading of cargo

- During driving, no cargo may be loaded, otherwise, the driving would be impaired.

2. Operation instruction:

2.1 Coding of car

- Please fill the number of engine and car identification code in the following spaces for reference.

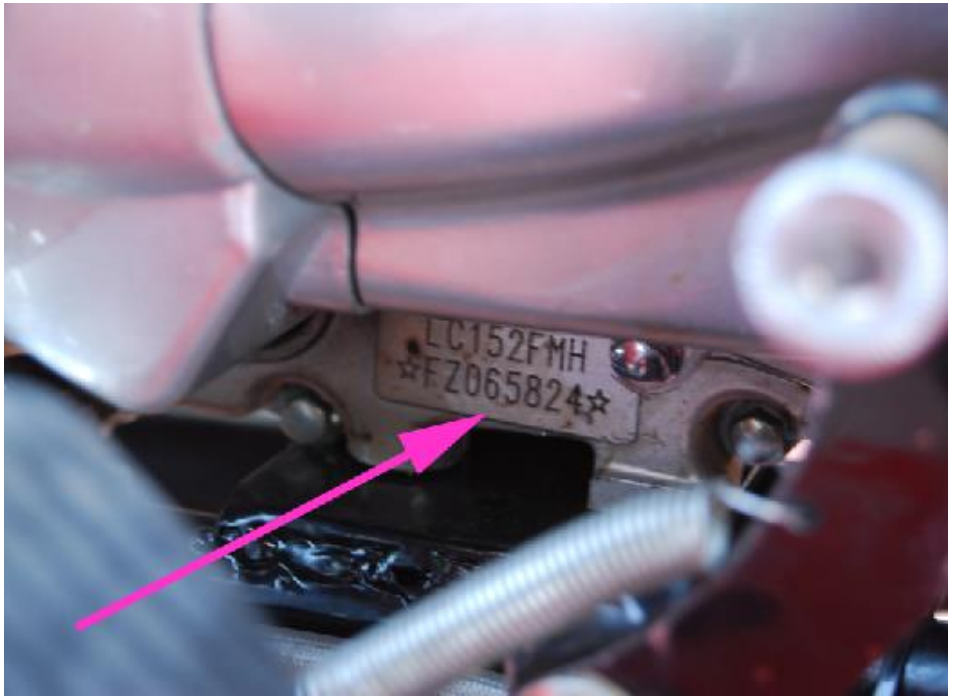
Number of engine: _____

Car identification code ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

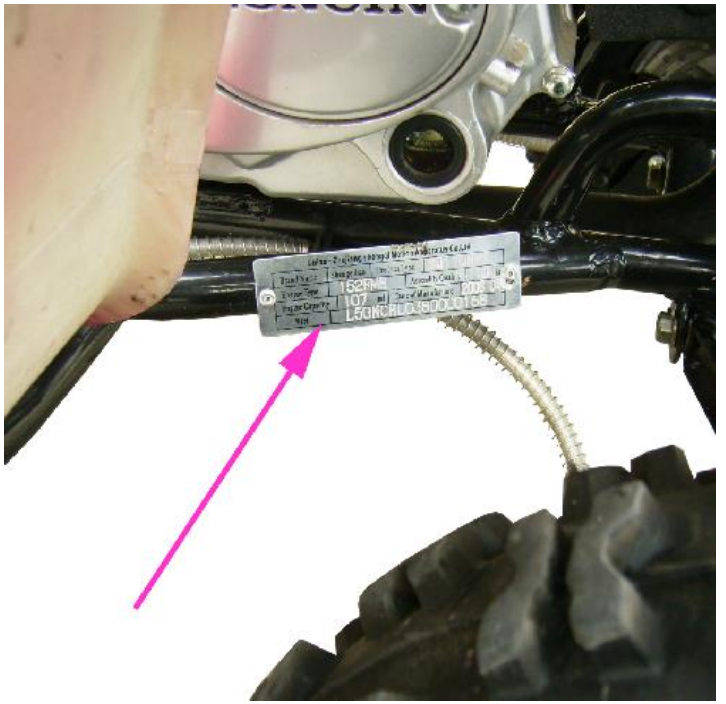
Notes:

Number of engine: Stamped on plane of left side of the engine (shown in Fig. 1).

Frame identification code: Stamped on right front side of the frame (shown in Fig. 2).

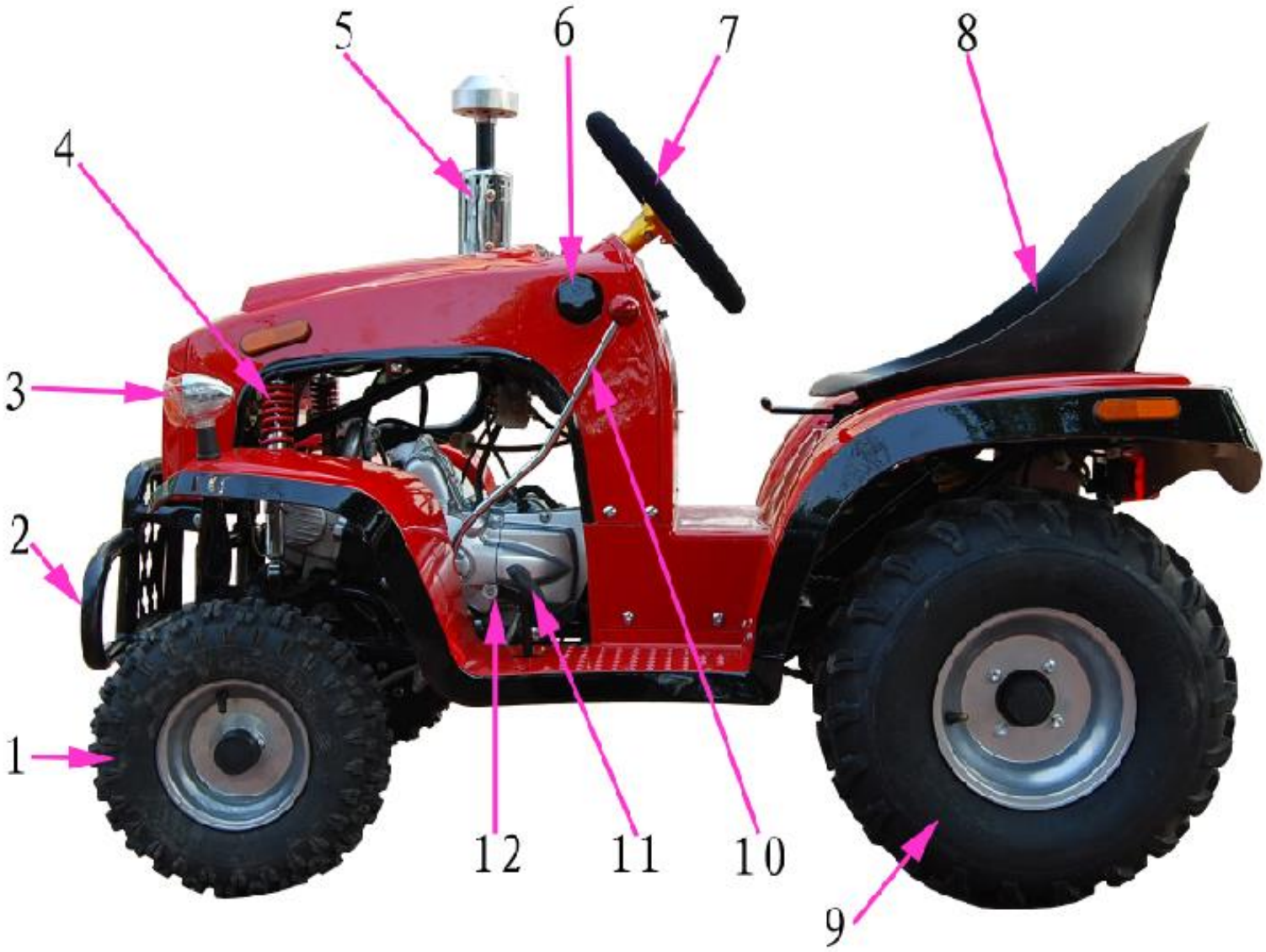


-Fig.1-

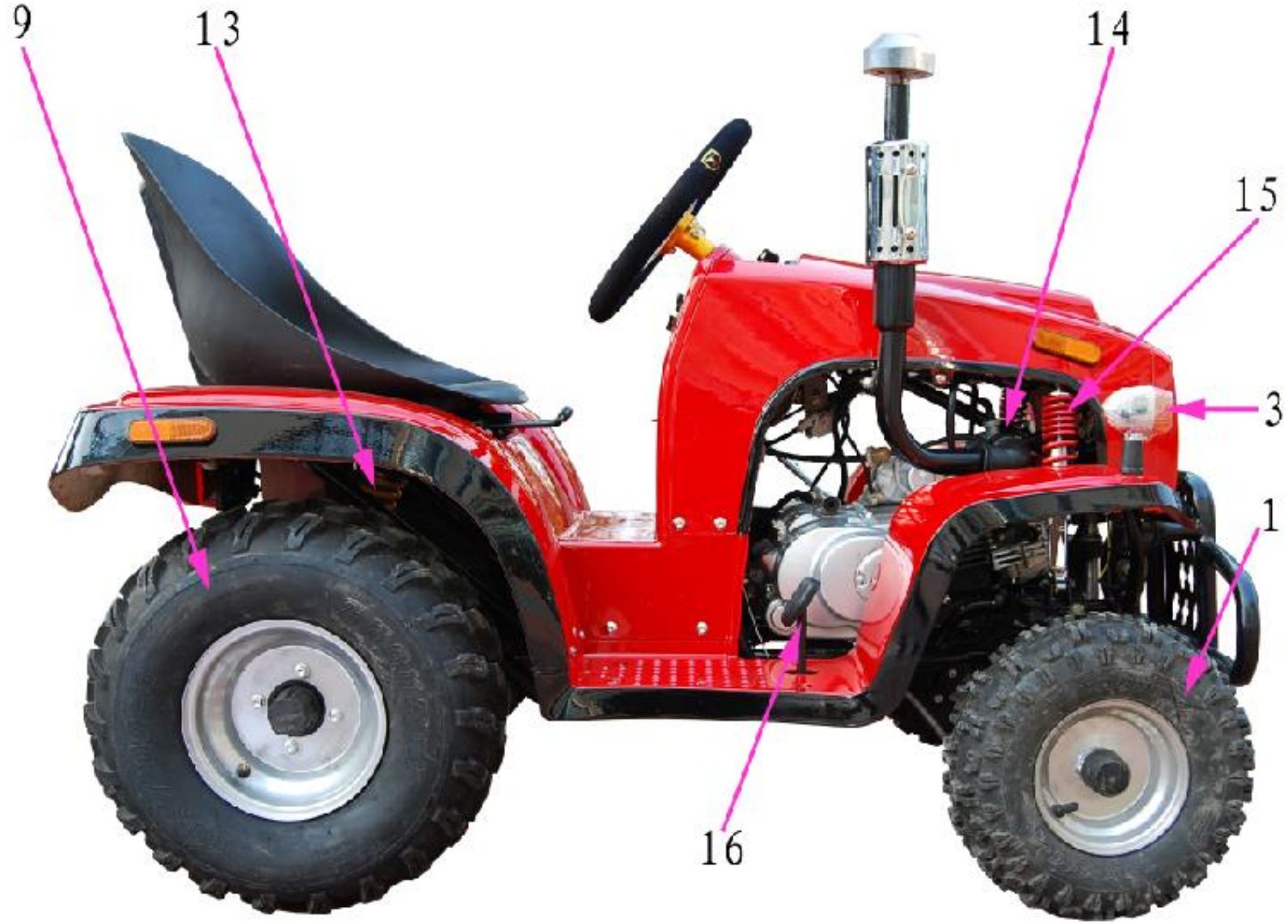


-Fig.2-

2.2 Positin of main components:



-Fig. 3-



-Fig. 4-

Fig. 5-

-Fig. 6-

List of main parts:

No.	Designation	No.	Designation	No.	Designation
1	Front wheel	12	Parking rocker arm	23	Chain guard
2	Front bumper	13	rear shock absorber	24	Rear brake
3	Front turn indicator	14	carburetor	25	Rear braking disk
4	Left front shock absorber	15	Right front shock absorber	26	Exhaust tube
5	Air filter	16	accelerator pedal	27	Rear right turn indicator
6	Oil tank cover	17	Front head lamp	28	Flag pole fixing hole
7	steering handle	18	Right front baking disk	29	Rear left turn indicator
8	Chair	19	Right front brake		
9	Rear wheel	20	Left front brake		
10	Shifting rod	21	Left front braking disk		
11	Brake pedal	22	Rear axle		

2.2.1 Position and operation of instrument indicator lamps and electric control switch

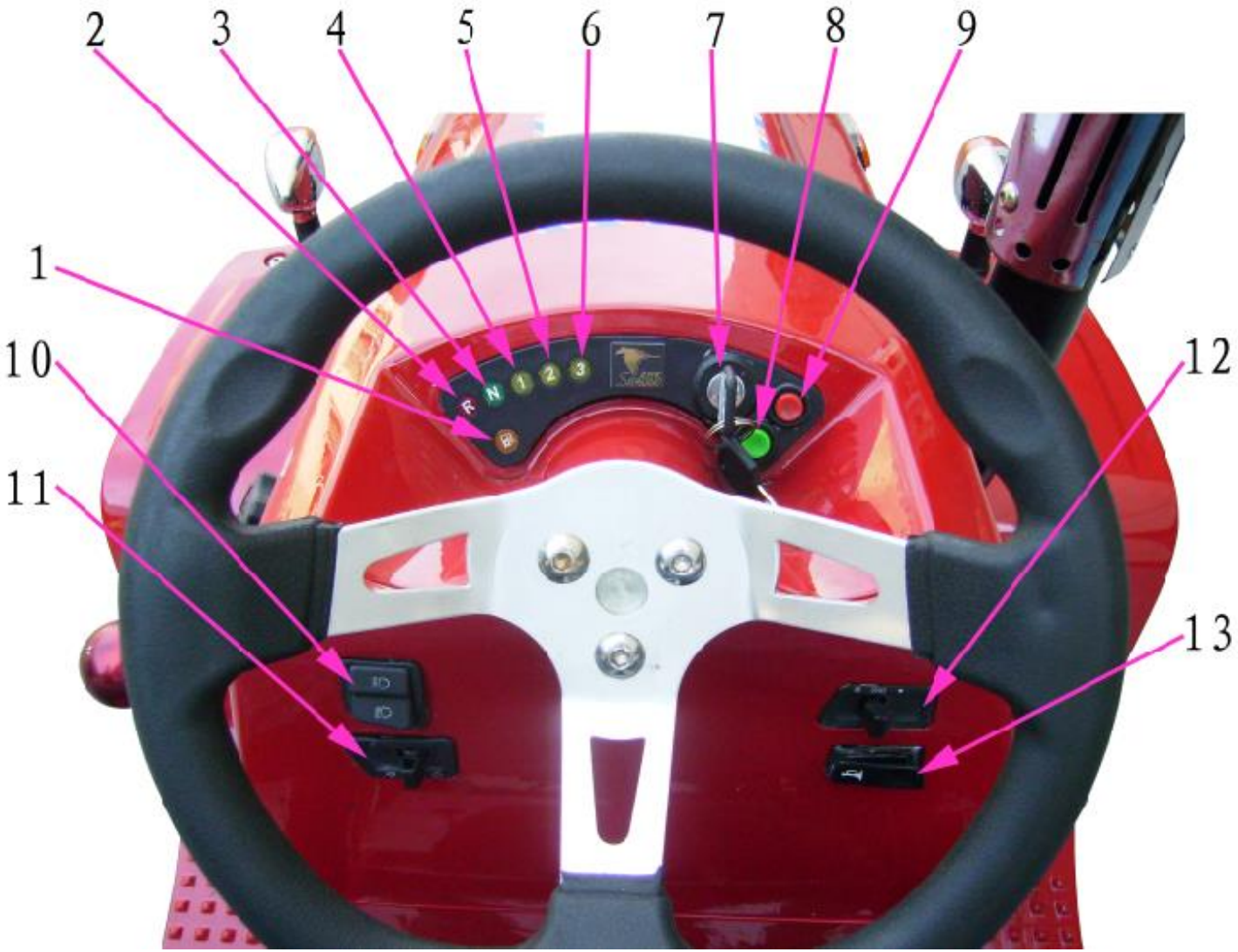


Fig. 7-

Functional keys:

1. Display of oil volume
2. Reverse indicator lamp
3. Neutral indicator lamp
4. Transmission-1 indicator lamp
5. Transmission-2 indicator lamp
6. Transmission-3 indicator lamp
7. Start switch
8. Ignition button
9. Cutout
10. Control buttons for main-beam/dipped-beam headlights
11. Turn indicator switch
12. Front head lamp switch
13. Horn button

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2.2.2 Ignition switch

The position of ignition switch is shown in Fig. 7-7.

OFF: Denoting that the circuit is cut off, the engine at dead state and the key can be withdrawn.

(·): Denoting that the circuit is in on-state, the engine may be started and the key is impossible to withdraw.

2.2.3 Indicator lamp

The positions of indicator lamps are shown in Fig. 7-1, 7-2, 7-3, 7-4, 7-5 and 7-6.

When ignition switch is on and the engine is at neutral position, the green indicator lamp 7-3 will light on. When engine is to be replenished, the orange indicator lamp 7-1 will light on.

When the gear is at other positions, the neutral indicator lamp will light off and any of indicator lamps 7-2, 7-4, 7-5 and 7-6 will light on depending on the transmission of the engine

2.2.4 Switch of head lamp and main-beam/dipped-beam headlamps

The position of front head lamp switch is shown in Fig. 7-12.

The positions for main-beam/dipped-beam headlamps switch are shown in Fig. 7-10.

In this car the front head lamp provides three types of light sources:

1） Common lighting: Set the head lamp switch at position “  ”.

2） Dipped-beam lamp: Set the head lamp switch at position “  ” and the main-beam/dipped-beam headlamps switch at position “  ”.

3） Main-beam light: Set head lamp switch at position “  ” and the main-beam/dipped-beam headlamps switch at position “  ”.

2.2.5 Fuel and oil tank cover

The oil tank is fixed at left side of top of the car, as shown in Fig. 3-6.

The car should use over 90# gasoline.

For fueling or checking oil level, counterclockwise rotate oil tank cover.

After fueling or checking oil level, downwards press and clockwise rotate the oil tank cover.

Note: Before fueling, the oil pipeline shall be checked for sure connection.

After fueling, the oil pipeline shall be checked for leakage and the oil tank cover shall be tightly screwed, otherwise, gasoline outwards leaking from oil tank through the cover would result in safety hidden trouble.

2.2.6 Fuel switch

Fuel switch is fixed at middle right of bottom of oil tank and is set on state (Shown in Fig.8).

Notes to position of handle of fuel switch:

“OFF” position, off state, stopping of fuel supply

“ON” position, on-state, normal fuel supply

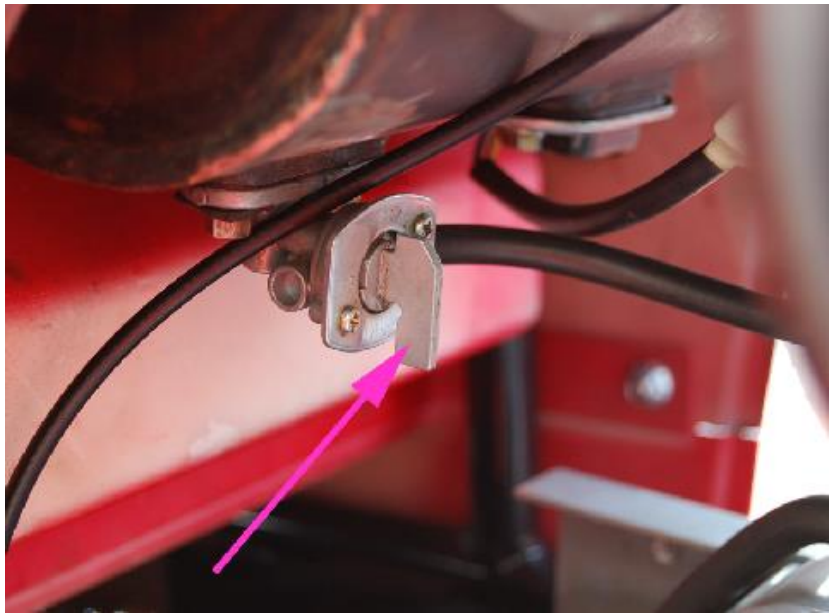
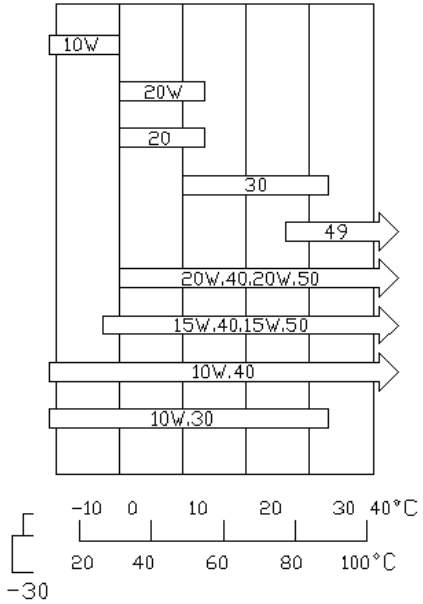


Fig.8-



-Fig. 9-

2.2.7 Selection of lubricating oil

The lubricating oil is one of important factors affecting the performances and service life of engine and specified one shall be used and shall not be substituted with common machine oil, gear oil or vegetable oil.

The engine is filled with SEA15W/40SE grade lubricating oil and for replacing, the lubricating oil shall reach grade SE and its viscosity shall be selected as per Fig.12 depending on different regions and air temperature. At replacing of lubricating oil the crank box shall be emptied, cleaned with cleaning kerosene and as per specification re-filled with fresh gasoline engine lubricating oil.

2.2.8 Tire

Both the front and rear wheel use vacuum tire and at use the tires shall be inflated within the specified range of barometric pressure.

3. Guide to operation

3.1 Start of engine

3.1.1 Check and preparation before starting of engine:

a. Fill gasoline into the oil tank to the specified range.

b. The oil pipeline shall be in normal state.

Notes:

. At fueling, the gasoline shall not be dropped onto the surface of oil tank cover and the gasoline on the oil tank surface shall be wiped with cloth.

. The fueling shall be made in well-ventilated place as far as possible.

3.1.2 Start of engine

a. Insert the key into slot of ignition switch.

B. clockwise rotation of the key may turn on the power supply.

c. Ensure that the green neutral indicator lamp lights on; otherwise, adjust the engine at neutral state as per instruction indicated on its left cover

d. Turn off the switch of engine choke. (off state shown in Fig.10 and on-state shown in Fig.11)

e. Press ignition button (shown in Fig.7-8) to ignite the engine. Slightly press the accelerator pedal at right pedal (shown in Fig 4-16) to supply oil to the engine.

f. The cold engine may be loaded after running for 2-3 minutes for warming.

-Fig. 10-

-Fig. 11-

Notes:

. The start time of engine for each operation shall not exceed 3~4 seconds, and for restart the engine shall be re-ignited after about 10 seconds, with the throttle slightly opened.

.After start of engine, the throttle may be properly widened to increase engine speed. After sufficient heating of the engine, choke handle shall be pushed back to the original position.

. In cold climate, the engine shall idle run for several minutes and then be accelerated after reaching the operation temperature.

.In extremely hot climate, the engine shall not idle run for prolonged period, and otherwise, over-heating of engine would occur.

. The engine shall not be started in narrow or enclosed space, otherwise, risk would occur.

3.2 Breaking-in of engine

. The calculation is made on assumption of daily running for 2 hours at speed of 30km/h.

. In the first 20 days' breaking-in period of new car, the engine speed shall be strictly controlled within 80% of its maximum speed and the throttle shall not be fully opened.

.After 10 days' breaking-in period the engine shall be maintained, the gasoline engine lubricating oil shall be replaced, and the valve clearance re-adjusted to the specified one, which will prolong engine's service life.

.Remove carburetor and clean it with special carburetor cleaner

3.3 Quenching method

For quenching, push the cutout for about 3 seconds (Shown in Fig. 7-9)

3.4 Driving of car

Start the engine to make it gradually warm up

Press the accelerator pedal to gradually increase engine speed and ensure steady start.

For braking, minimize the car speed, release the accelerator pedal and gradually apply force onto the left front brake pedal. In order to ensure good braking effect and control car, except for special case during driving heavy braking shall be avoided as far as possible.

Note:

In order to avoid impairment of speed, power consumption and unnecessary mechanical wearing-out, under normal condition urgent braking shall not be made as far as possible. For braking, it is necessary to minimize the speed, release the accelerator pedal and then apply the brake.

. At turning the speed shall be decreased and the body shall incline towards the turning direction to avoid turn-over.

. At climbing the speed shall be decreased and the body shall incline forwards as far as possible to avoid turn-over.

.After start of engine, heavy pedaling or shifting shall be avoided as far as possible; otherwise the car would be backwards inclined or the components damaged

. This car is a tool car and care shall be taken on rugged roads.

3.5 Shifting method

The shifting rod is on lower left of steering handle at middle of left side of the whole car (shown in Fig. 3-10).

The shifting mechanism is not a cyclic gear and it can automatically clutch. At start, it is set at neutral (at that time, the green indicator lamp 7-3 will light on) and then operated as per the shifting instruction on the right side of engine.

Notes:

1. At shifting, release the accelerator pedal and then control the transmission to avoid damage of gears inside the engine.

2. During forward running of car, reverse transmission is not allowed. For shifting to reverse transmission (at that time, the red indicator lamp 7-2 will light on.), stop the car and then make operation as per method of note 1.

3. During forward running of car, reverse transmission is not allowed.

3.6 Accelerator and braking

The accelerator pedal is shown in Fig.4-16

The rear wheel brake pedal is shown in Fig. 3-11.

Notes:

. During driving, place feet on the pedal as far as possible. The left hand and the rear braking handle as well as the right hand and the front braking handle shall be kept at a given position for correct acceleration, deceleration and braking. In order to avoid impairment of speed, power consumption and unnecessary mechanical wearing-out, except for urgent case, during driving the brake shall not be applied.

3.7 Parking

The parking unit is on the right side of brake pedal. For parking, press the brake pedal and backwards pull the parking rocker arm with hand to surely clamp the brake pedal (The car before or after parking is shown in Fig. 12 and Fig. 13 respectively)

-Fig. 12-

-Fig. 13-

3.8 Steering handle

For assembling the steering handle, M6 screws beneath the steering handle shall be tightened.

Note:

The screws beneath the steering handle shall be forcibly and firmly tightened.

4. Maintenance

4.1 Check and replacement of lubricating oil

The lubricating oil level shall be monthly checked.

The machine oil stick is fixed at rear right top of engine crank box and the oil level shall be between the upper and lower mark of the oil stick.

At check, park the car on flat ground, take out and wipe dry the oil stick, insert the stick into the hole (not rotate the thread) and take out the stick again to check the oil level (Shown in Fig.14).

As required, fill 15W/40SE grade gasoline engine lubricating oil to the mark.

After check or filling of gasoline engine lubricating oil, re-place and tightly screw the oil stick.

Notes:

. In order to avoid burning by silencer, the gasoline engine lubricating oil shall be checked under cold-car state.

. The lubricating oil shall be clean and free of foreign matters.

. Running under insufficient engine lubricating oil would result in wearing out of components.

. At re-placing, the oil stick shall be firmly tightened.

-Fig. 14-

-Fig. 15-

Replacement of lubricating oil

After preheating and then quenching of engine, discharge the lubricating oil. (The position of lubricating oil drain plug is shown in Fig.15.)

When replacing of lubricating oil, elevate the car and place the chassis on a support (at a height for easy oil draining), place a receiver beneath the drain plug at engine bottom, screw out the drain plug, take out screen and spring and completely discharge lubricating oil.

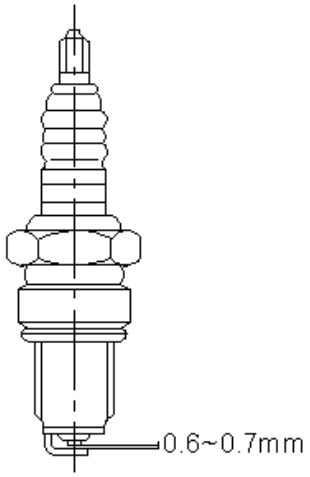
Clean the screen, spring and drain plug in clean oil.

Check “O” ring of screen for good conditions and replace the screen, spring and drain plug.

Fill fresh gasoline engine lubricating oil as in check of lubricating oil and check for leakage from the drain plug.

After replacing lubricating oil, re-fit the disassembled parts.

4.2 Selection and replacement of spark plug



-Fig. 16-

Model of spark plug: A7RTC

Check of spark plug:

Remove the spark plug cap, move the spark plug with sleeve in tool bag, check its side poles and center pole for damage, ablation and carbon, clear off the carbon (if any), check the gap between spark plug poles with feeler gauge and adjust the gap to 0.6-0.7mm (Shown in Fig.16)

Check the seal pad of spark plug for good state and replace the bad one, if any.

When re-fitting spark plug, in order to avoid mal-threading, firstly tighten manually and then tighten with sleeve.

Re-fit the disassembled parts

4.3 Check and adjustment of valve clearance

The valve clearance shall be checked and adjusted in cold engine state.

Excessive valve clearance would result in noise and too small or even no clearance would impair closing of valve, ablation of valve and reduction of output power and hence valve clearance shall be regularly checked.

The valve shall be checked and adjusted as follows:

. Remove center hole cap and top hole cap (ignition time observation hole) on left tank cover of engine, as shown in Fig.17.

. Remove 2 valve caps from cylinder head.

Insert T- wrench into center hole cap, clamp on the fly wheel nut, clockwise rotate fly wheel till alignment of the “T” mark with the mark on top hole of tank cover and slightly shake the rocking arm. Loosing of rocking arm (gap) denotes that the piston is at upper dead center of compression stroke and the valve may be adjusted. Tightening of rocking arm denotes that the piston is at lower dead center of exhaust stroke. At that time, T-wrench shall be clockwise rotated for 360°, to align the marks and then the valve may be adjusted.

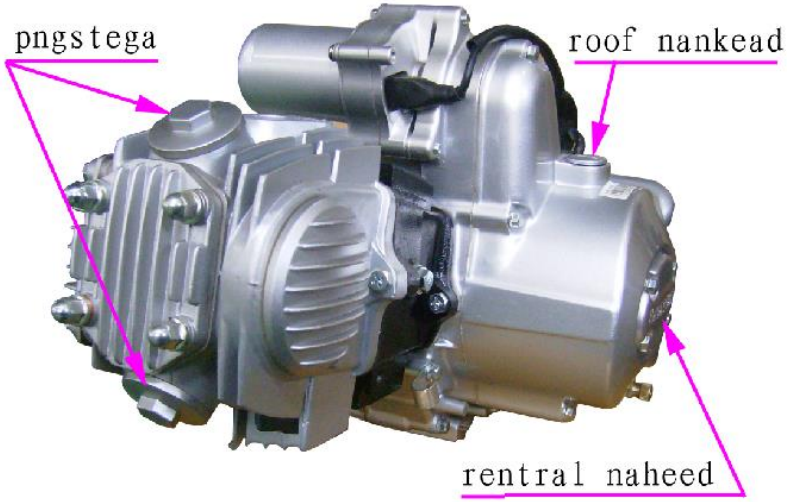
. For checking valve clearance, insert the feeler gauge between the valve adjustment screw and valve ram (Shown in Fig.18)

.Standard valve clearance: suction valve 0.05mm, exhaust valve 0.05mm.

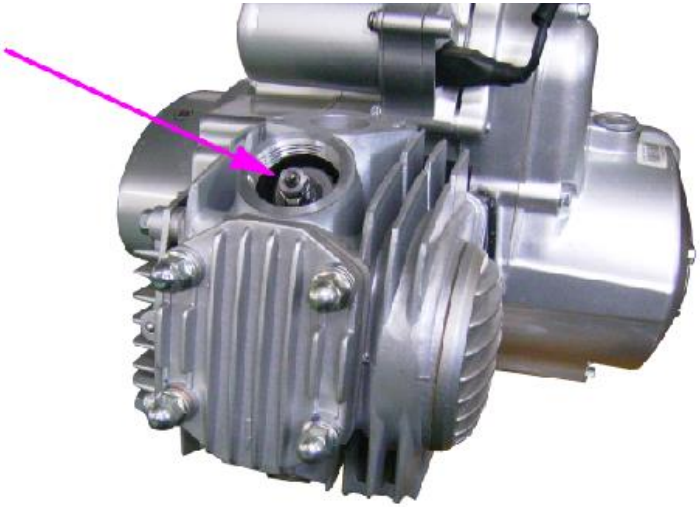
. For adjustment, unscrew the set nut of the adjustment screw, and regulate the screw till feeling slight resistance when inserting feeler gauge of specified thickness. After adjustment, tighten the set nut and re-confirm conformity of the gap.

. After adjustment, re-place valve cap and two hole caps on left tank cover.

.Re-fit other disassembled parts.



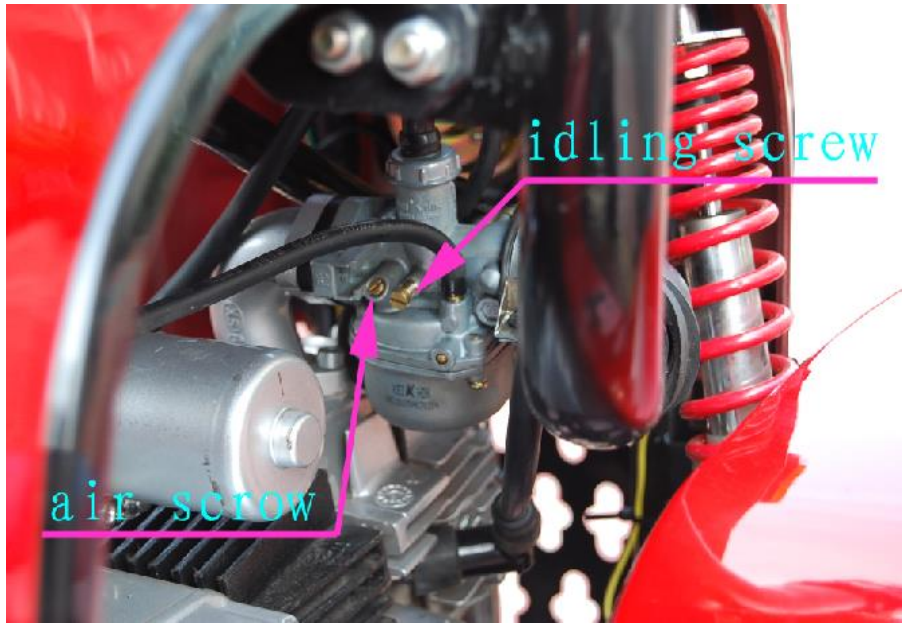
-Fig. 17-



-Fig. 18-

4.4 Carburetor idle adjustment

Place the car on flat road, start the engine for pre-heating and after rise of temperature make adjustment (idle screw shown in Fig.19)



-Fig. 19-

Adjustment method:

With the idle screw adjust the idle to 1500±100rpm. Clockwise rotate the screw and after proper increase of idle counterclockwise adjust the idle screw till no idle or deceleration of engine, and then clockwise adjust the screw between the upper and lower limit position.

. If after adjustment, the idle is still unstable, it is necessary to re-adjust with idle screw.

4.5 Checking, adjustment and lubricating of driving chain

Checking of the driving chain

At checking, elevate the car and place the chassis on a support of a given height to make the rear wheel leave the ground, manually rotate tire to drive the chain, check the chain for obvious wearing out and damage, and replace with a new chain, if necessary.

.Checking of chain sag:

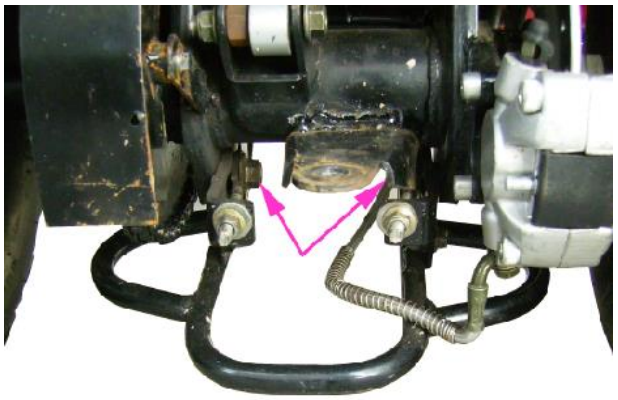
The upper vertical sag of the chain is 10~15mm; otherwise, it is imperative to timely adjust.

.Adjustment of chain sag:

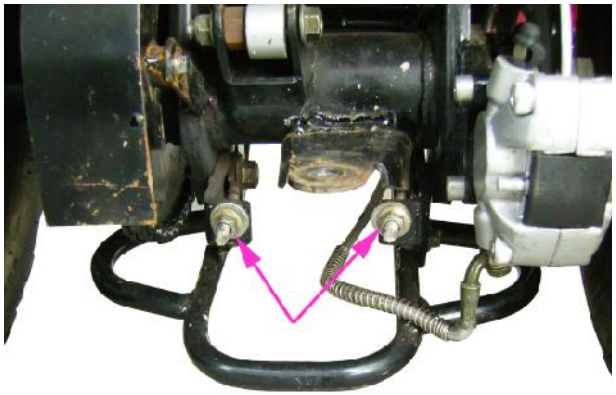
1, Loose bolts on both sides of bottom of rear bushing (screw position shown in Fig.20)

2 With wrench tighten or loosen the chain adjustment nut (nut position shown in Fig.24) till reaching chain tension 10~15mm (schematic diagram of checking the tension is shown in Fig.25).

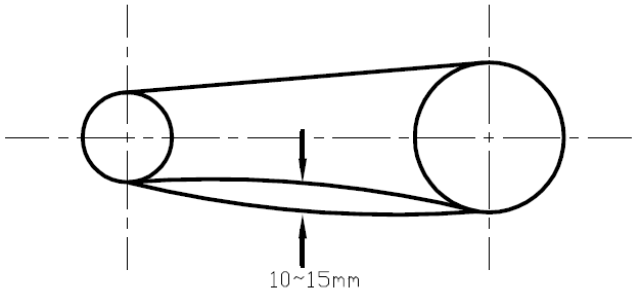
3. Tighten bolts on both sides of bottom of rear bushing.



-Fig. 20-



-Fig. 21-



-Fig. 22-

Notes:

1. The left and right distance of two chain adjustment nuts shall be equal.

2 Tighten bolts on both sides of bottom of rear bushing

3 Carefully re-fit other disassembled parts

Lubricating of driving chain

Check the chain for oil shortage and obvious oil stain. In case of oil shortage, properly coat lubricating oil or chain lubricating oil. In case of obvious oil stain, clean the chain in cleaning oil, and then properly coat lubricating oil.

4.6 Check and adjustment of front and rear braking system

The front and rear braking system adopts drum type brake and the rear wheel adopts hydraulic disk type brake.

The braking system is essential to personal safety, and shall be checked before use.

1. Checking and adjustment of front braking system:

. When pressing the brake pedal with foot, there shall be no obvious loosing.

. The brake pedal shall be able to fast return to the original state.

At releasing the pressed-rocking arm of braking handle, it shall be able to fast return to the original state.

.When the brake pedal freely returns, there shall be no obvious clearance.

. Check the braking disk for obvious wearing out and damage

. Check the hydraulic pipeline for leakage.

. There shall be no obvious loosing of screws on brake base.

. The butterfly brake disk shall be free of collision, deformation or damage.

. When brake pedal is pressed, it shall not be restricted and after releasing it shall be able to automatically return.

.When the brake pedal is pressed on and the car is forcibly forwards pushed, one should feel obvious braking.

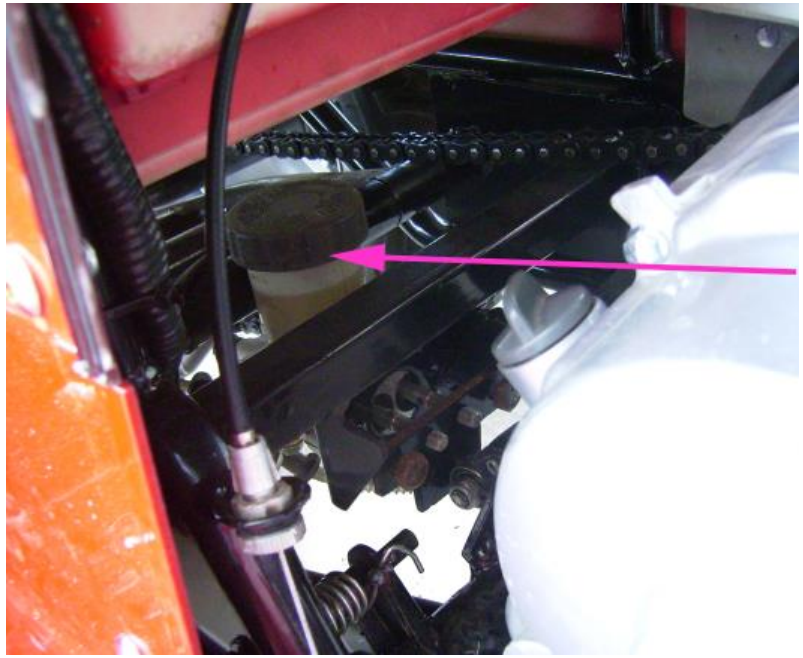
Note: In case of trouble, timely adjust or replace the braking sheet, disk or braking cylinder.

Important:

During adjustment, make overall observation to make each part properly adjusted.

Only after confirming braking effect, may the car be driven.

Any braking disk damaged or deformed resulted from impact during driving shall be immediately replaced.



-Fig. 23-

Hydraulic oil pipeline

.The braking system adopts high pressure braking and the damaged oil pipeline, if any, shall be replaced.

.The connection of the oil pipeline where leakage occurs shall be properly tightened.

.In case of loosing of fasteners of brake system, the fasteners shall be immediately tightened.

Hydraulic oil

For this car, BOT3 hydraulic oil is used and it shall not be mixed with other hydraulic oil, except for BOT4 hydraulic oil.

For replenishing or replacing hydraulic oil, unscrew the cap of hydraulic oil cup, filling proper amount of hydraulic oil and press the brake pedal to make the hydraulic oil enter brake.

(The filling position of hydraulic oil is shown in Fig. 23.)

Recommendation: The braking cylinder shall be replaced or adjusted in authorized maintenance center.

4.7 Checking and maintenance of battery

In this car, a maintenance-free battery is fixed beneath rear of the cushion.

Check of battery

. Take out battery from beneath rear of the cushion, clean it with clean water and then wipe it dry with cloth.

Check the battery for damage, crack and leakage so as to decide the possibility for continuous use.

Important:

The damaged or leaking battery, if any, shall be immediately replaced.

Technical maintenance of battery

Due to special structure, normally maintenance-free battery needs no technical maintenance.

After prolonged use, the electrolyte solution and in turn the effective capacity of the maintenance-free battery will obviously reduce. The time for technical maintenance of the maintenance-free battery is decided by moment when its electrical power capacity first drops, instead of by the running duration. If the electrical capacity is insufficient while no damage, crack or leakage occurs, it may be charged. Charging and technical maintenance shall be made in authorized maintenance center.

4.8 Maintenance during parking period

For prolonged storage, the car shall be protected from moisture, sunshine, rain and collision so as to avoid unnecessary damage.

Before storage, the important parts shall be especially checked.

. Lubricating chain

. Completely discharge fuel from both fuel tank and carburetor and cut off the fuel switch. For car traveling for more than one month, the carburetor shall be completely emptied.

Notes:

. The fuel is inflammable and fueling shall be made outdoors and during fueling the engine shall be cut off. Smoking in the place where fuel is filled, discharged or stored shall not be allowed.

. Turn off the oil-supply switch and close the choke.

. Take out spark plug and put 10ml pure lubricating oil into cylinder.

. Wipe the car and coat anti-rust oil on parts liable to rust.

. Cover the entire car with integral film bag in the packing box or similar goods.

. Pad the chassis to make 4 wheels leave the ground as far as possible.

Resuming of use

. Remove the cover and wipe the car

. Fill sufficient fuel to the fuel tank and set the fuel switch at on-state.

. Before driving, check each part for good condition.

. Slowly drive in safe place

4.9 Maintenance schedule

The car shall be maintained at specified interval and the meanings of letters in the table are as follows:

I: checking, cleaning, adjustment or replacing R: replacing L: lubricating

C: cleaning A: adjustment

Maintenance shall be made in maintenance center. If the user has special tools and maintenance fittings and capacity, he may make self-maintenance in accordance with pump maintenance.

Notes:

The items marked "☆☆" shall be made in maintenance center.

If the car drives on poor roads, it shall be frequently cleaned and maintained.

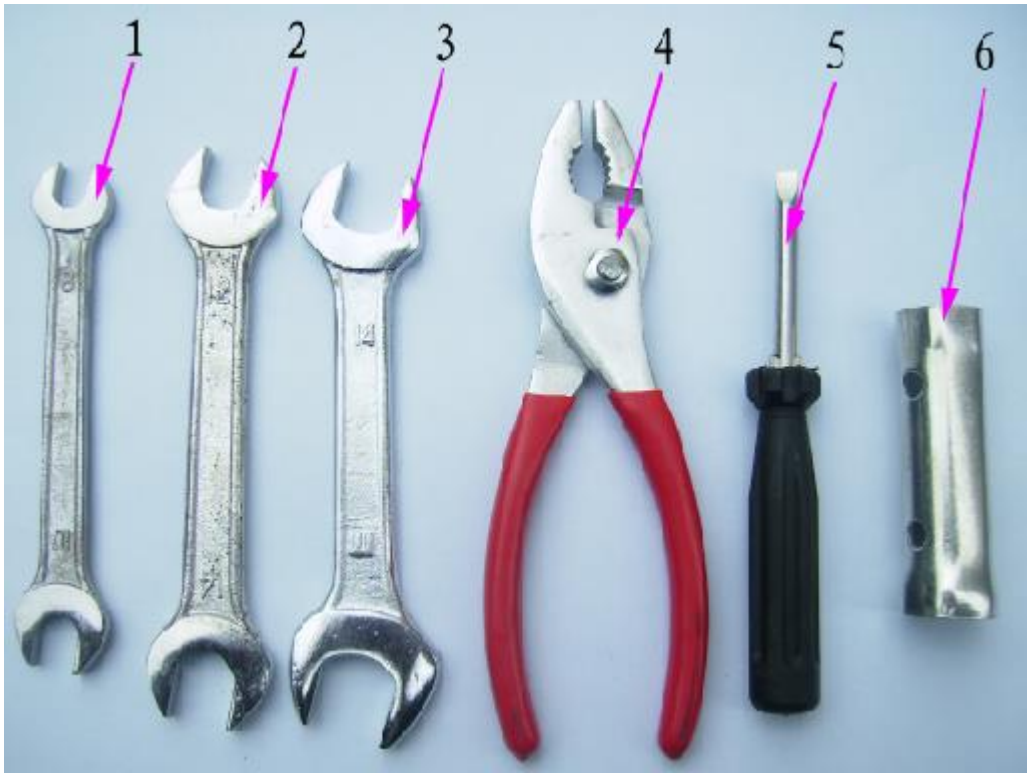
Item		Interval	Item		Interval
☆	Fuel system passage	3 months (I)	☆	carburetor idle	2 months (A)
☆	Fuel filter	6 months (R)	☆	driving chain	2 months (IL)
☆	Throttle manipulating system	4 months (I)	☆	front and rear braking system	2 months (I)
☆	Carburetor choke	4 months (I)	☆☆	Maintenance of battery	3 months (I)
☆	Air filter	8 months (R)	☆	Bearing	3 months (I)
☆☆	Spark plug	4 months (I)	☆	Nut, bolt and fasteners	3 months (I)
☆	chain tension	2 months (A)			

5. Allocation and notes to exchangeable engines (50CC, 90CC and 110CC)

This car uses engines of three displacements (50CC, 90CC and 110CC), and except for different displacements they are same in appearance and installation position, with the parameters shown in 7 herein.

6. Accompanied tools

The car is accompanied with 11 pieces of tools in tool bag and the tool bag is place on bottom of the packing box.



List of tools:

1. Dual fixed-open wrench 8-10
2. Dual fixed-open wrench 12-14
3. Dual fixed-open wrench 14-17
4. Clipper
5. Dual-purpose screw driver
6. Spark plug sleeve

7 主要性能参数

Appendix A　Table of technical parameters of four-wheel all-terrain vehicle

Product	UTV		Model		SQ90NF	
L× W× H（mm）	1320×870×680		Model of engine		H S 147FMH	
Wheel base mm	860		Bore × stroke mm		47X49.5	
Tire tread mm	front 790 rear823		Working volume of the cylinder mL		86ml	
Min. ground clearance mm	80		Compression ratio		8. 5：1	
Diameter of turning circle mm	3000		Min. stable idle speed r/min		1500±150	
Idle mass　Kg	/		Rated power kW (r/min)		4． 2/8000	
Integral mass Kg	107.5		Max. torque N.m (r/min)		5． 5/7500	
Rated loading capacity Kg	200		Type of carburetor		plunger type PZ27	
Highest speed Km/h	40		Type of clutch		manual waterish multichip	
Capacity of fuel tank L	2.5		Type of plug		D8RTC	
Type of front /rear shock absorber	Hydraulic shock absorber		Type of vent silencer		Cylinder type silencer	
Type of front /rear brake	front hub-brake rear Hydraulic disk brake		Starting mode		Electric　starting	
Operation mode of front /rear brake	front Hand brake rear pedal brake		Ignition mode		CDI	
Specification of front /rear tire	19×7.00-8 13×5.00-6		Transmission mode		chain transmission	
Air pressure of front /rear tire	10/15P.S.I		Lubrication mode		Combined type of pressure and splash	
Type of front /rear hub	obturate		Cooling mode		wind cooling	
Specification of front lamp	12V 25/5W		Brand of fuel		Above 90#	
Initial reduction ratio	3.722		Mixing ratio of fuel/lubricating oil		/	
Final reduction ratio	UTV		Brand of lubricating oil		15W/40	
Transmission ratio	I	II	III	IV	V	VI
	3.182	1.765	1.043	Inverse:2.583		

Appendix A Table of technical parameters of four-wheel all-terrain vehicle

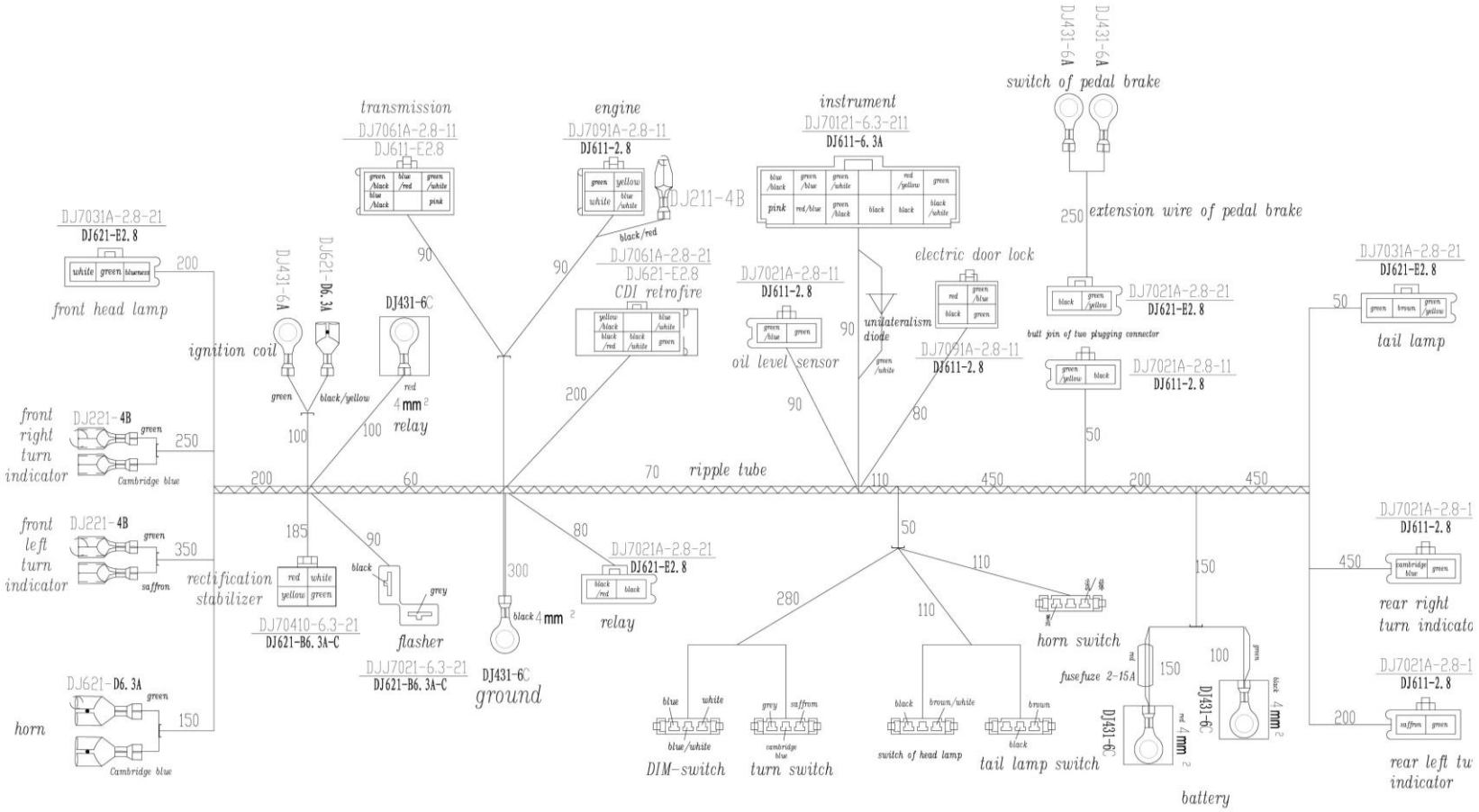
Product	UTV		Model		SQ110NF	
L× W× H（mm）	1320×870×680		Model of engine		H S 152FMH	
Wheel base mm	860		Bore × stroke mm		52.4×49.5	
Tire tread mm	front 790 rear823		Working volume of the cylinder mL		107	
Min. ground clearance mm	80		Compression ratio		9.1：1	
Diameter of turning circle mm	3000		Min. stable idle speed r/min		1500±150	
Idle mass Kg	/		Rated power kW (r/min)		4.7/8500	
Integral mass Kg	107.5		Max. torque N.m (r/min)		6.5/6000	
Rated loading capacity Kg	200		Type of carburetor		plunger type PZ24	
Highest speed Km/h	4 0		Type of clutch		manual waterish multichip	
Capacity of fuel tank L	2.5		Type of plug		A7RTC	
Type of front /rear shock absorber	Hydraulic shock absorber		Type of vent silencer		Cylinder type silencer	
Type of front /rear brake	front hub-brake rear Hydraulic disk brake		Starting mode		Electric starting	
Operation mode of front /rear brake	front Hand brake rear pedal brake		Ignition mode		CDI	
Specification of front /rear tire	19×7.00-8 13×5.00-6		Transmission mode		chain transmission	
Air pressure of front /rear tire	10/15P.S.I		Lubrication mode		Combined type of pressure and splash	
Type of front /rear hub	obturate		Cooling mode		wind cooling	
Specification of front lamp	12V 25/5W		Brand of fuel		Above 90#	
Initial reduction ratio	3.722		Mixing ratio of fuel/lubricating oil		/	
Final reduction ratio	/		Brand of lubricating oil		15W/40	
Transmission ratio	Ⅰ	Ⅱ	Ⅲ	Ⅳ	Ⅴ	Ⅵ
	3.182	1.765	1.043	Inverse:2.583		

Appendix A Table of technical parameters of four-wheel all-terrain vehicle

Product	UTV	Model	SQ5 0NF
L× W× H（mm）	1320×870×680	Model of engine	H S147FMH
Wheel base mm	860	Bore × stroke mm	47X49.5
Tire tread mm	front 790 rear823	Working volume of the cylinder mL	4 9 ml
Min. ground clearance mm	80	Compression ratio	8. 5：1
Diameter of turning circle mm	3000	Min. stable idle speed r/min	1500±150
Idle mass Kg	/	Rated power kW (r/min)	1． 8/8000
Integral mass Kg	107.5	Max. torque N.m (r/min)	2． 2/7500
Rated loading capacity Kg	6 0	Type of carburetor	plunger type PZ27
Highest speed Km/h	3 5	Type of clutch	manual waterish multichip
Capacity of fuel tank L	2.5	Type of plug	D8RTC
Type of front /rear shock absorber	Hydraulic shock absorber	Type of vent silencer	Cylinder type silencer
Type of front /rear brake	front hub-brake rear Hydraulic disk brake	Starting mode	Electric starting
Operation mode of front /rear brake	front Hand brake rear pedal brake	Ignition mode	CDI
Specification of front /rear tire	19×7.00-8 13×5.00-6	Transmission mode	chain transmission
Air pressure of front /rear tire	10/15P.S.I	Lubrication mode	Combined type of pressure and splash
Type of front /rear hub	obturate	Cooling mode	wind cooling
Specification of front lamp	12V 25/5W	Brand of fuel	Above 90#
Initial reduction ratio	3.722	Mixing ratio of fuel/lubricating oil	/
Final reduction ratio	UTV	Brand of lubricating oil	15W/40

Transmission ratio	I	II	III	IV	V	VI
	3.182	1.765	1.043	Inverse:2.583		

8. Schematic electric diagram



Circuit diagram of small-size tractor

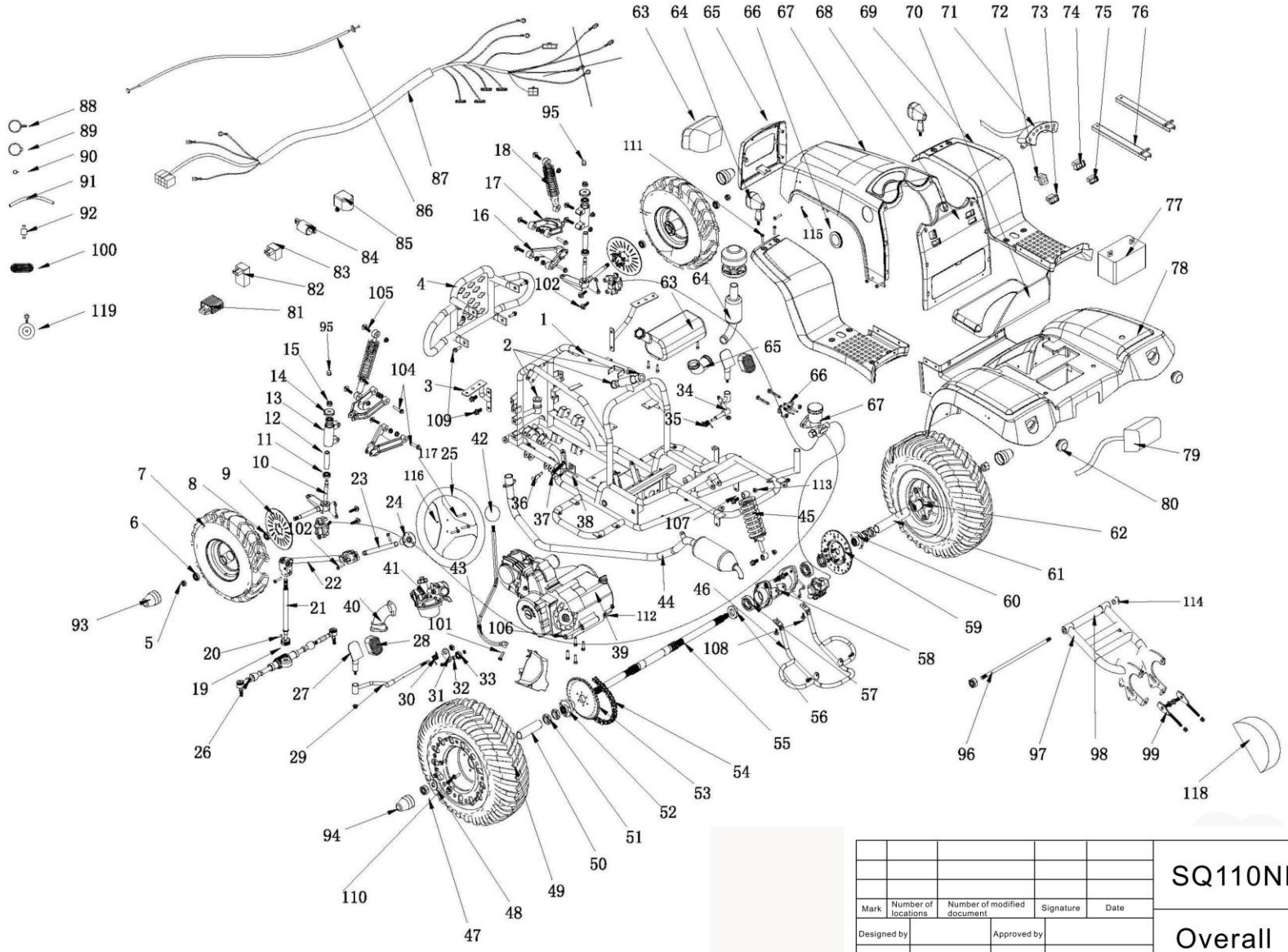
Technical requirement:

1. The sectional area of black, red and green wires shall be not below 0.75mm^2.

2. The sectional area of other wires shall be not below 0.5mm^2.

3. The withdrawal force of plug shall be at least 5kg.

4. The outside of single plug piece shall be coated with insulating sheath.



					SQ110NF
Mark	Number of locations	Number of modified document		Signature	Date
Designed by		Approved by			Overall exploded drawing
Checked by					
Process inspection					
Conformity examined by		Date			

9 Exploded view of the whole car

119	SQ110NF-D11R	Horn		1	
118	SQ110NF-D11R	Chain guard		1	
117	SQ110NF-CB05BX	Inner hexagonal big-flat head screw	M6*16	40	
116	SQ110NF-BZ49	Non-metal hexagonal flange locking nut	M6	4	
115	SQ110NF-BZ48	Non-metal hexagonal flange locking nut	M5	4	
114	SQ110NF-BZ47	Full-metal hexagonal flange locking nut	M12*1.25	3	
113	SQ110NF-BZ45	Full-metal hexagonal flange locking nut	M10*1.25	4	
112	SQ110NF-BZ41	Full-metal hexagonal flange locking nut	M8	20	
111	SQ110NF-BZ38	Full-metal hexagonal flange locking nut	M6	30	
110	SQ110NF-BZ35	Hexagonal flange bolt (full-threaded)	M8*30	8	
109	SQ110NF-BZ31	Hexagonal flange bolt (full-threaded)	M8*20	8	
108	SQ110NF-BZ27	Hexagonal flange bolt (full-threaded)	M6*16	2	
107	SQ110NF-BZ24	Hexagonal flange bolt	M10*40*1.25	1	
106	SQ110NF-BZ23	Hexagonal flange bolt	M8*105	1	
105	SQ110NF-BZ19	Hexagonal flange bolt	M8*35	4	
104	SQ110NF-BZ20	Hexagonal flange bolt	M8*40	8	
103	SQ110NF-BZ18	Inner hexagonal cylindrical screw	M8*25	2	
102	SQ110NF-BZ15	Inner hexagonal cylindrical screw	M8*20	4	
101	SQ110NF-BZ9	Inner hexagonal cylindrical screw	M6*20	1	
100	SQ110NF-S06	Side light piece		4	
99	SQ110NF-ZC12	Rear wheel adjuster		2	
98	SQ110NF-ZC10	Chain stay bush		1	
97	SQ110NF-ZC9	Rear chain stay		1	
96	SQ110NF-BZ26	Stud		1	
95	SQ110NF-X07B	Spiky nut cover		2	
94	SQ110NF-X04B	Rear wheel hub cover		2	
93	SQ110NF-X03B	Front wheel hub cover		2	
92	SQ110NF-X08B	Oil filter		1	
No.	Code	Designation	Materials/specification	Quantity	Remark

91	SQ110NF-X01B	Oil delivery pipe		2	
90	SQ110NF-T02BX	Oil pipe clip		4	
89	SQ110NF-T01BX	Carburetor clip		1	
88	SQ110NF-T03BX	Air filter clip		1	
87	SQ110NF-ZC13	Harness assembly		1	
86	SQ110NF-LS	Throttle control cable		1	
85	SQ110NF-D10R	Relay		1	
84	SQ110NF-D08R	High-pressure bag		1	
83	SQ110NF-D01R	Flasher		1	
82	SQ110NF-D07R	Igniter		1	
81	SQ110NF-D09R	rectifier		1	
80	SQ110NF-S05	Rear left-right turn indicator		2	
79	SQ110NF-S04	Rear tail lamp		1	
78	SQ110NF-S14	Rear plastic part		1	
77	SQ110NF-ZC15	Battery		1	
76	SQ110NF-J06BX	Cushion rail		2	
75	SQ110NF-D06R	Dimmmer switch		1	
74	SQ110NF-D05R	Switch of turn indicator		1	
73	SQ110NF-D03R	Switch of horn		1	
72	SQ110NF-D04R	Switch of head lamp		1	
71	SQ110NF-D02R	Instrument		1	
70	SQ110NF-S07	Cushion		1	
69	SQ110NF-S15	Panel of electric switches		1	
68	SQ110NF-S13	Left/right pedal		2	
67	SQ110NF-S12	Main plastic parts of head		1	
66	SQ110NF-X02B	Seal of oil tank		1	
65	SQ110NF-S11	Fixing plastic parts of front head lamp		1	
64	SQ110NF-S03	Front left/right turn indicator		1	
63	SQ110NF-S02	Front head lam		1	
62	SQ110NF-ZC8	Real wheel flange		2	
61	SQ110NF-ZC6	Right bush of rear axle		1	
No.	Code	Designation	Materials/specification	Quantity	Remark

60	SQ110NF-ZC03	Disk brake base		1	
59	SQ110NF-J03BX	Disk brake pan		1	
58	SQ110NF-ZC01	Bearing base		1	
57	SQ110NF-ZC17	Bearing		2	
56	SQ110NF-ZC18	Oil seal		2	
55	SQ110NF-ZC7	Rear axle		1	
54	SQ110NF-Z08	Chain		1	
53	SQ110NF-J04BX	Pulley		1	
52	SQ110NF-ZC4	Sprocket base		1	
51	SQ110NF-ZC16	Hexagonal nut		4	
50	SQ110NF-ZC5	Left bush of rear axle		1	
49	SQ110NF-L4-6	Rear tire		2	
48	SQ110NF-ZC15	Flat washer		2	
47	SQ110NF-ZC14	Slot nut		2	
46	SQ110NFZC11	Protective bracket of rear axle		1	
45	SQ110NF-J05BX	Rear shock absorber	Central distance 255	2	
44	SQ110NF-GH08	Exhaust tube		1	
43	SQ110NF-GH12	Shifting rod		1	
42	SQ110NF-L03	Ball head of shifting rod		1	
41	SQ110NF-Z10	Carburetor		1	
40	SQ110NF-L01	Air inlet tube		1	
39	SQ110NF-Z07	Gasoline engine		1	
38	SQ110NF-CB01BX	Parking clamp		1	
37	SQ110NF-T03B	Parking pull-spring		1	
36	SQ110NF-CB02BX	Parking handle		1	
35	SQ110NF-T02B	Right torsion spring		1	
34	SQ110NF-GH02	Accelerator shaft		1	
33	SQ110NF-BZ3	Bearing	Φ22*Φ8*7	1	
32	SQ110NF-J08BX	Braking bearing bush		1	
31	SQ110NF-CB03BX	Top plate of disk brake cylinder		1	
30	SQ110NF-T01B	Left torsion spring		1	
29	SQ110NF-GH03	Brake shaft		1	
No.	Code	Designation	Materials/specification	Quantity	Remark

28	SQ110NF-X06B	Rubber of pedal		2	
27	SQ110NF-GH04	Pedal		2	
26	SQ110NF-Z08	Steering link		1	
25	SQ110NF-Z05	Steering wheel		1	
24	SQ110NF-Z06	Fixing base of steering wheel		1	
23	SQ110NF-Z02	Upper steering column		1	
22	SQ110NF-Z01	Steering universal shaft		1	
21	SQ110NF-Z03	Lower steering column		1	
20	SQ110NF-Z07	Plain key		1	
19	SQ110NF-Z08	Steering gear		1	
18	SQ110NF-J02BX	Front shock absorber	Central distance 260	2	
17	SQ110NF-GH09	Upper rocker		2	
16	SQ110NF-GH10	Lower rocker		2	
15	SQ110NF-BZ50	Non-metallic anti-loosing nut	M12*1.25	2	
14	SQ110NF-E02	Anti-dust cover		2	
13	SQ110NF-GH07	Spiky fixing base		2	
12	SQ110NF-J07BX	Bush inside front wheel steering shaft		2	
11	SQ110NF-BZ4	Bearing	Φ28*Φ12*8	2	
10	SQ110NF-GH06	Front wheel spiky rotating shaft		2	
9	SQ110NF-J02BX	Front disk brake pan		2	
8	SQ110NF-BZ1	Bearing	Φ32*Φ15*10	2	
7	SQ110NF-L01-03	Front tire	13*5.00-6	2	
6	SQ110NF-BZ2	Bearing	Φ32*Φ12*9	2	
5	SQ110NF-BZ52	Slot nut	M12*1.25	2	
4	SQ110NF-GH11	Front bumper		1	
3	SQ110NF-GH05	Front mud guard bracket		2	
2	SQ110NF-N01B	Nylon sleeve of steering column		3	
1	SQ110NF-GH01	Main frame		1	
No.	Code	Designation	Materials/specification	Quantity	Remark