
WOLF
ISLANDER

Precautions

Please read this User's Manual carefully before operating this vehicle!

Warning

* Please observe traffic laws and regulations.
* All users must have a valid driver's license.
* NEVER hang anything on the handlebars while operating your vehicle
* For your safety, always wear a helmet, eye protection, and gloves while operating your vehicle.
* This vehicle is for road use only.
* Always be aware that the exhaust and muffler will get hot during vehicle operation. Do not touch during or shortly after riding as not to burn yourself.
* For your safety, always wear the appropriate clothing and footwear while operating your vehicle.

Caution

* Please check the accessories and various documents delivered with the vehicle according to the packing list.
* Strictly follow the weight limit of the vehicle.
* Do not mechanically modify any part of the vehicle. Modifying the vehicle can decrease the engine life, the reliability of your vehicle, and compromise the rider's safety.
* Only premium fuel should be used in the vehicle. (90+ octane) Otherwise, the engine performance, fuel economy, and safety of the vehicle may be compromised, and the service life of the vehicle will be shortened. Use of lesser rated fuel will void the engine coverage of your warranty.
* All repairs and required service must be completed at a Wolf Brand Scooters authorized service center. All required service must be done to the vehicle following the published service intervals to maintain the vehicle's warranty.
* Not completing required, scheduled service will void your warranty.

Suggestion

* This manual provides important information regarding the vehicle. If the vehicle is transferred to any other person, this manual should be transferred together with the vehicle.

Vehicle Identification Number (VIN) and Engine Number

The Vehicle Identification Number (VIN), Engine Number and Quality Certificate, are used to obtaining your registration and license plate for your new vehicle

Vehicle Identification Number (VIN) is printed on the vertical tube of the frame You will have to remove a small cover in the knee board to see this plate

The product nameplate is riveted on the right lower part of the frame.

The Engine Number is printed on the left lower part of the crankcase.

Please note your vehicles specific numbers for future reference here:

VIN:
Engine Number:

A Brief Introduction to your vehicle

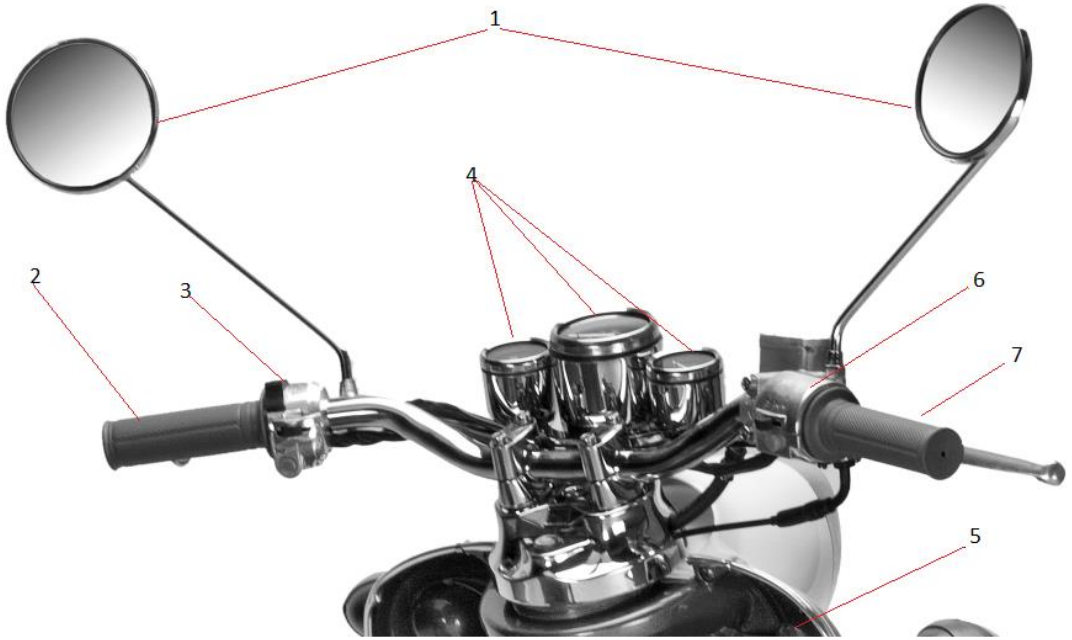
①. Head Light
②. Left front turn light
③. Front storage box
④. Seat cushion
⑤. Rear carrier
⑥. Disc brake
⑦. Side stand
⑧. Center stand
⑨. Starting arm
⑩. Air filter

A Brief Introduction to your vehicle

1. Tail light
2. Helmet hook
3. Steering gear
4. Right front turn light
5. Rear wheel
6. Muffler
7. Battery cell
8. Front braking lever
9. Front wheel

A Brief Introduction to your vehicle

①. Rearview mirror
②. Left handgrip
③. Left combination switch
④. Instrument combination
⑤. Ignition lock switch
⑥. Right combination switch
⑦. Throttle grip



Technical Specifications and Performance Parameters

Item		Specification
Displacement		49.6cc
Overall dimensions(L*W*H)		67" × 26" × 41"
Wheelbase		47"
Minimum ground clearance		4"
Complete vehicle shipping mass		220lbs
Maximum payload		330lbs
Engine model		139QMB
Engine form		Single-cylinder, four-stroke
Engine	Bore × Stoke	39mm×41mm (1.535"x1.653")
	Working volume of cylinder	48 ml
	Compression ratio	10.2:1
	Model of carburetor	DPD18J
	Air filter	Sponge filter
	Method of lubrication	Force-feed and splash
	Startup way	Kick/Electric start-up
	Maximum power/corresponding speed	4.53 HP/8000 RPM
	Maximum torque/corresponding speed	2.22 Ft Lbs./5000 RPM
	Minimum idling stabilized speed	(1500±100) RPM
	Economic fuel consumption	90 MPG
Travelling system	Model of suspension	Hydraulic spring
	Drive mode	Belt drive
	Specification/air pressure of tire	Front wheel 3.00-10 32psi. Rear wheel 3.00-10 32psi

Technical Specifications and Performance Parameters

Item		Specification
Displacement		49.6cc
Drive system	Clutch type	Dry-type automatic centrifugal (CVT)
	Transmission type	Automatic
	Front wheel type	Aluminum alloy wheel
	Continuous transmission ratio	1.5-0.6
	Fixed transmission ratio	13.122
Braking system	Front brake	Disc brake
	Rear brake	Drum brake
025")Electric system	Ignition Type	CDI
	Model of spark plug	NGK-CR7HSA
	Spark plug gap	0.6mm~0.7mm (0.025")
	Specification of battery	12VDC / 7Ah
	Fuse	10 Amp
	Head Light	12V 35W/35W
	Tail light/Braking light	12V 5W/21W
	Turning signal light	12V 10W×4
	Turn signal indication lamp	12V 1.7W×2
	Instrument light	12V 1.7W×2
	Front Position Lamp	12V 5W
Fuel & oil	Fuel tank	1.5 gallons
	Engine oil	27 Oz.

A Basic Introduction to your Vehicle

Instrument Cluster

1 **Left turn indicator lamp:**

When the left turning indicator lamp "⇦" flashes, it indicates that the "Left Turn signal" is on.

2 **High beam indicator lamp:**

When the high beam indicator lamp "≡D" is on, it indicates that the "High beam lamp" is on.

3 **Speedometer:**

It indicates the current driving speed of the vehicle.

4 **Odometer:**

It records the accumulative miles travelled.

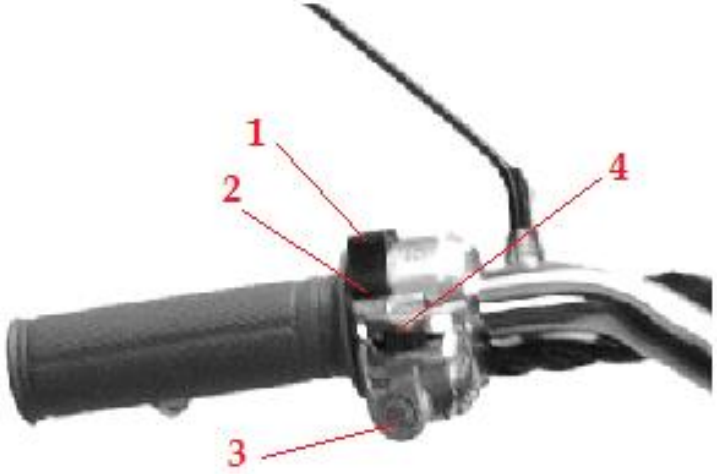
5 **Fuel gauge:**

It indicates how much fuel is in the fuel tank of the vehicle.

6 **Right turn indicator lamp:**

When the right turning indicator lamp "⇨" flashes, it indicates that the "Right turn signal" is on.

Left hand switch assembly



1 High beam lamp switch:

To use the "High beam lamp", turn the switch to the upper "≡D" Positon.

2 Low beam lamp switch:

To use the "Low beam lamp", turn the switch to the lower "≡D" position.

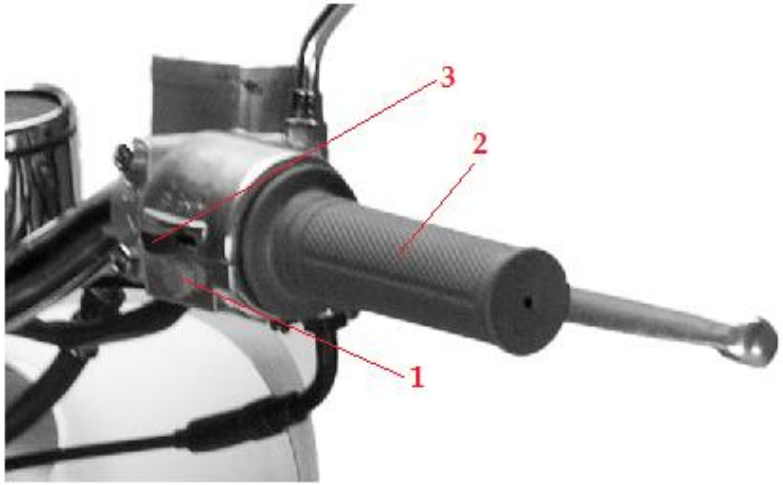
3 Horn button:

To use the horn, press the button "".

4 Turning signal switch:

When changing the direction of the vehicle, switch to "⇦" or "⇨" when turning left or right to show others around you your intentions. When you are done turning, press the middle of the button to turn the signal off.

Right hand switch assembly



1 Electric start button:

When you want to start the vehicle, press the "" button while holding in both brake levers.

2 Throttle grip:

When the engine is on, twist this grip towards yourself to accelerate, and twist it away from you to decelerate the vehicle

3 Cut Off or Run/Stop Switch:

The electrical power for the engine is turned on when the switch is set to

The position marked ""

This switch must be set to this positon for the engine to start and run

The electrical power to Engine is turned off when the switch is set to the position marked ""

The engine will turn off when this switch is set to this position

Key Switch and Lock Set

When the vehicle is parked, turn the Ignition lock switch to "🔒" to lock the steering to help prevent the vehicle from being stolen.

1) **Ignition On:**

Insert the key and turn the ignition lock to "🔑" to switch on the electrical system of the vehicle.

2) Ignition Off:

Turn the ignition lock to "⊗" to switch off the electrical system of the vehicle. The vehicle key can be removed.

3) Steering lock:

When stopped, turn the handle bars all the way to the left, push the key inwards and turn to "🔒" to lock the steering. The key can then be removed.

Accessing Storage and the Fuel Tank.

Front storage box

Front storage box: closed-type, provided with a cover.

Seat cushion storage

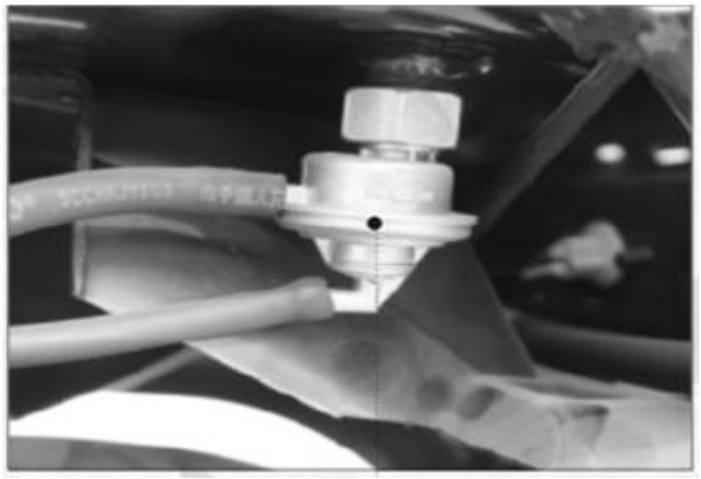
Seat cushion: Insert the ignition lock key into the seat cushion lock and turn it 90º clockwise to open the seat cushion.

Fuel tank

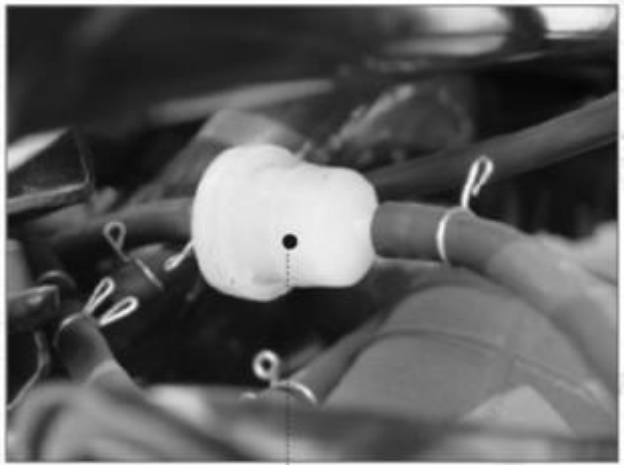
The capacity of the fuel tank is 1.2 gallons.

To open the fuel tank cap, turn the cap 90º counterclockwise and remove

To Close the fuel tank cap: Align the tabs on the fuel cap with the slots in the tank, and turn it 90º clockwise.



Fuel tank vacuum switch: This opens from the vacuum pressure produced by the engine, fuel then flows via gravity to the carburetor.



Fuel filter: fuel flows through this fuel filter, to ensure that it is clean when it reaches the carburetor

Warning

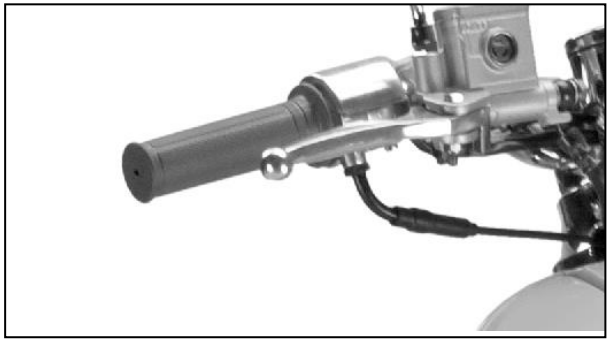
* Don't fill fuel above the neck of the fuel tank.
* Gasoline vapors are flammable. The vehicle should be turned off before opening the fuel tank cap. Fuel should be dispensed in a well-ventilated place.
* While refueling, smoking is strictly forbidden nor should it be done near any open flame or spark. Before refueling, ground yourself by touching any metal part of the vehicle. This will dissipate any static electricity present and prevent static sparks that could ignite any fuel vapors that will be present during refueling.

Caution

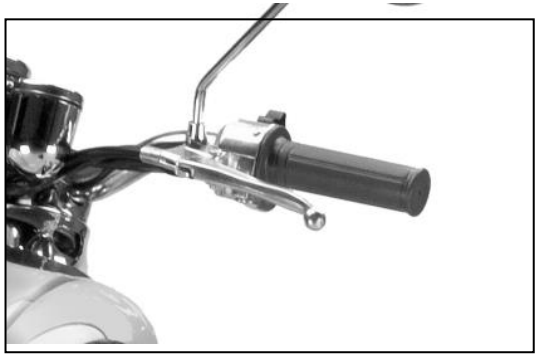
* **Only 90+ Octane or above fuel should be used.**

Operating Details.

All WOLF Brand Scooters use the dry, centrifugal clutch and belt driven CVT (Continuously Variable Transmission). If there is an issue with the clutch, belt or variator, take your vehicle to an authorized WOLF Brand Scooter dealership for service.



Front brake: This is the right lever when you're sitting on the vehicle. It is a disc brake.

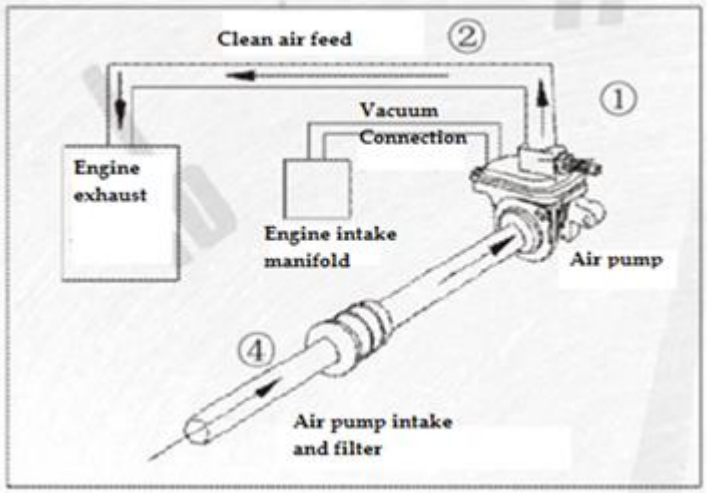


Rear brake: This is the left lever when you're sitting on the vehicle. It is a drum brake.

Automatic clutch: The CVT allows smooth acceleration without the need for gear changes.

Kick Starter: This is used for manually starting the engine. The vehicle must be on the main stand, the ignition must be on and the brake levers need to be held in while you kick start the engine.

Environmental protection device



The environmental protection device is mainly a two-in-one air compensating valve (air pump) combining a one-way leaf valve and a secondary air control valve. . By making use of the engines vacuum pulsation, the air pump controls the amount of air needed to enter the exhaust port through the one-way leaf valve and the secondary air control valve. This fresh air enters the exhaust passage of the engine under the action of the air pump. Unburned fuel vapor discharged from the engine in its exhaust is then consumed. Thusly this device reduces the exhaust pollution of the vehicle, and ensures that the vehicles exhaust meets National Stage III emission standards.

Emission Standards of vehicles (Stage III , under the running mode)

Unit:g/km

Emitted pollutants	Two-wheel vehicles
CO	2.0
HC	0.8
NOx	0.15

Emission Standards of Mopeds (Stage III , under the running mode)

Unit:g/km

Emitted pollutants	Two-wheel moped
CO	1.0
HC + NOx	1.2

Limits of exhaust pollutants of scooter /mopeds under idle conditions

In case of idle type approval test, the volume concentration of emitted CO is ≤3.8%; and the volume concentration of emitted HC is ≤800×10-6;

In case of Production consistency check test, the volume concentration of emitted CO is ≤4.0%; and the volume concentration of emitted HC is ≤1000×10-6.

Vehicle Load

The maximum load limit of the vehicle must be strictly observed. Otherwise, the safety and stability of the vehicle may be compromised.

* Belongings in the seat storage box must be secured to prevent them from moving while the vehicle is in motion.
* NEVER hang anything on the handle bars while operating the vehicle. This will dangerously compromise the handling of the vehicle
* The load on the rear luggage carrier must not exceed 11 lbs.

The load of the rear storage box should not exceed 11 lbs.

Tool kit (Included)

Common service and maintenance tools are delivered with the e vehicle.

Your tool kit will be found stored in the under-seat bucket area in a black vinyl pouch

Operating Instructions

Checks before and after operating the vehicle

There are checks that you should do on your vehicle on a regular basis to ensure that the vehicle is always safe to use and to keep it in good condition. These checks will also help in optimizing the vehicle's performance.

1. After it's been sitting for more than a few hours and after cleaning the vehicle, start the engine, and let it run at idle for several minutes, making sure it reaches operating temperature.
2. Check for any fluid leaks. If any are found correct as soon as possible.
3. Check for any loose electrical connections.
4. Check to ensure that all lights are working.

Different levels of maintenance and service need to be performed at different odometer readings. When these are performed may vary because of the different conditions the vehicle might be subjected to.

The very first oil change should be done between 300~500 miles to replace the "break-in" oil with fresh lubricant. The valve clearances should be checked and adjusted if necessary.

Level 1: Service and Maintenance: Odometer reading 1000~1500 miles. Oil change, valve checking/adjusting, and lubricate any necessary parts and check any nuts and bolts and tighten as necessary. (See the Service and Maintenance section for more details).

Level 2: Service and Maintenance: Odometer reading 2000~2500 miles. Oil change, valve checking/adjusting, and lubricate any necessary parts and check any nuts and bolts and tighten as necessary. (See the Service and Maintenance section for more details).

Level 3: Service and Maintenance: Odometer reading 3000~3500 miles. Oil change, valve checking/adjusting, and lubricate any necessary parts and check nuts and bolts and tighten as necessary. Disassemble necessary parts and check for any hidden hazards/wear. (See the Service and Maintenance section for more details).

Oil changes and basic service should be done every 1000 miles.

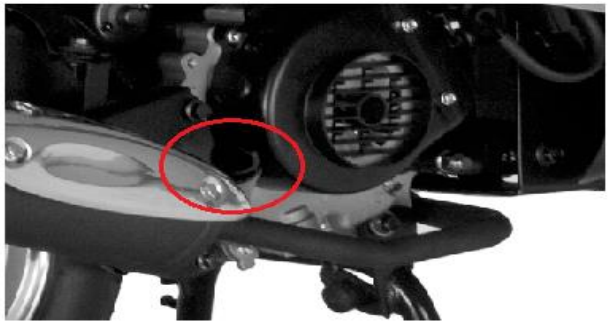
ALL WORK NEEDS BE DONE AT AN AUTHORIZED WOLF BRAND VEHICLE DEALERSHIP TO ENSURE YOU DO NO VOID YOUR WARRANTY

Before running the vehicle, please follow the following steps to check it, to ensure good performance of the vehicle and your driving safety.

Turn the ignition on and ensure all turn signals and other lights are working.

Check the fuel gauge to ensure you have enough gas to get to your destination.

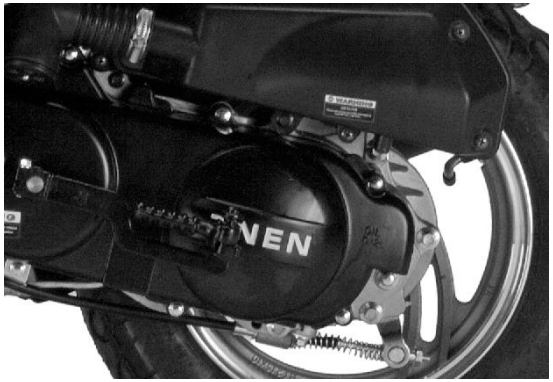
Open the fuel tank cover, and add fuel according to your travel plans



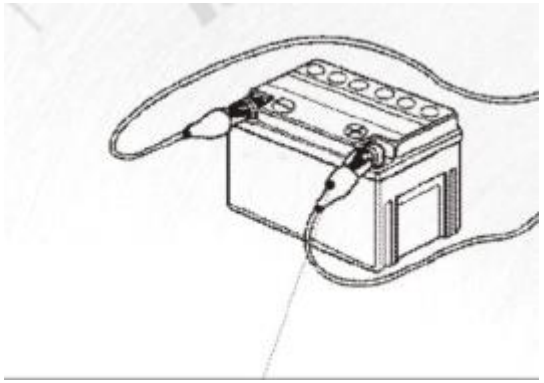
To check the oil level properly, put the vehicle on the main stand so it is level, unthread and remove the dipstick, wipe it off, insert it and then remove to check the level. The oil level must always be between the two markings. Make sure to tighten the dipstick once done checking.

Check the handle bars by moving from left to right. They should move easily and smoothly with no play or binding.

Check that the throttle grip rotates smoothly and freely. If not, the throttle cable may need replacing.



Check for any fluid leaks under the



Check the terminals on the battery to ensure that they are both clean and tight

Check the pressure of the front tire. Set to between 32 and 40 Psi. Always check air pressure when tires are cold Check for abnormal wear on the tire tread and outer walls.

Check the pressure of the rear tire. Set between 32 and 40 Psi. Always check air pressure when tires are cold. Check for abnormal wear on the tire tread and outer walls.

The throttle grip should have a slight amount of free play in it. About 10-20 mm (0.394-0.790 inch)

Check that the rear brake lever has the correct amount of free play in it. About 20-30 mm (0.790-1.181 inch)

Check that the head light, turning lights and indictor lamps work properly.

Check that the tail light and brake lights work properly.

Manual Startup

1) Turn the ignition on.

2) The vehicle should be put on the main stand and you need to hold the brake levers to allow the engine to start.

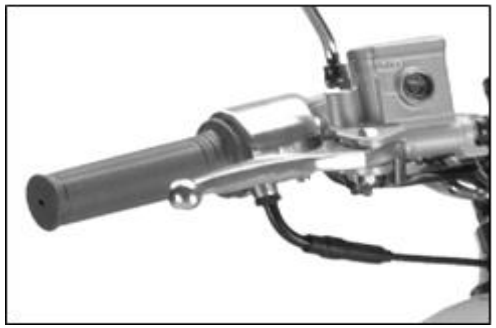
3) Pull out the foot lever, place your foot on it and push firmly and quickly all the way down. Let the arm return to its horizontal position before you try to kick start it again. Repeat this motion.

4) Twist the throttle slightly to allow more gas flow as you kick the engine over. Once started, let the engine warm up before revving the engine at high RPM.

Operation of Electric Startup

The duration of each start attempt should not exceed 5 seconds, and the interval between two attempts should not be less than 10 seconds. If 3 consecutive attempts fail to start the engine, the vehicle must be checked.

First, insert the key into the ignition switch lock, and turn it to the position "".



Hold the front braking handgrip, turn on the electric startup switch and perform electric startup.

Parking the vehicle

When you come to park the vehicle, you have 2 different ways to park it, the side stand and the main stand.

You should turn your engine off before using either of these stands.

Using the side stand:
Holding the vehicle upright, you use your foot to put the side stand down. Once all the way down, you can then lean the vehicle onto it.
NOTE: With this side stand down, a safety switch is activated and the vehicle will not start

Using the main stand:
Holding the vehicle upright, place your left hand on the left-hand grip and your right hand on the rear rack. Keeping the vehicle vertical, you put your right foot on the main stand and press down while pulling up with your right hand.

To lock the steering column, turn the handlebars all the way to the left, push the key inwards and turn the ignition to the "" position to prevent the vehicle from being stolen easily.

Regular Service and Maintenance

Throughout the life of the vehicle, usage will inevitably cause wear of its mechanical parts. Regular maintenance will prolong the life of the vehicle.

Requirements on Service and Maintenance

1. Keep the vehicle clean, make sure there are no fluid leaks
2. Confirm that the automatic clutch does not show any indication of slipping on acceleration or that it makes any abnormal noise. Also confirm that your throttle operates smoothly and without binding.
3. Confirm that the brakes work well and meet necessary stopping requirements. Also confirm that the wheels spin freely once brakes are released and that there is no friction noise when brakes are not on.
4. The front and rear shock absorbers should compress and rebound smoothly and check for leaks around the seals. The air pressure of the tire should be set to the required amount.
5. Check for loose electrical connections around the whole vehicle.
6. The air pressure in the tires should be set to the required P.S.I.
7. All mechanical parts should be lubricated.
8. The cable connections to the battery terminals should be clean and tight and the battery should be secured properly within the vehicles battery box.
9. Any corrosion on any metal parts should be taken care of as soon as possible to prevent spreading.

Service and Maintenance during the break-in Period

How a new vehicle is broken in directly affects the service life of the vehicle. Within the first 500 miles of a new vehicle the driving speed should not exceed 30 MPH, and the rider should vary your speed regularly.

Precautions taken during break in period:

1. During the break in period, replace the oil with Standard 15w-40 or synthetic 5w-40 engine oil and clean the oil filter screen every 300-500 miles.
2. Regularly check for loose electrical connections, and tighten if found.
3. Regularly check to make sure that the engine, the drive train, and the braking system does not overheat. Make sure that there is enough lubricating oil on each lubricated part. If any overheating occurs, the cause should be found and rectified immediately.
4. Regularly check the tightness of the drive belt, the free travel of the front and rear brakes, throttle grip and the handle bar movement. Adjust them if necessary.
5. During the break-in period, only operate the vehicle after the engine is well warmed up. First run it at low speed for 1~2 miles, and then run it at higher speeds.
6. To reduce vibration and impact loads, the vehicle should run on a level road with good road conditions whenever possible.
7. During the run-in period, carrying any unnecessary weight should be avoided. Otherwise, the drive train will wear faster.
8. Try to avoid heavy braking and braking for long periods of time.
9. Strictly control the running speed of the vehicle.

Level 1 Service and Maintenance

Level 1 Service and Maintenance should be performed every 1000 miles. You should:

1. Replace the engine oil with Standard 15w-40 or synthetic 5w-40 engine oil and clean the oil filter screen.
2. Adjust the travel of the front brake handle to 10mm~20mm (0.390-0.790 inch), and adjust the rear brake handle to 20mm~30mm (0.790-1.181 inch).
3. Adjust the travel of the throttle cable to 2mm~6mm (0.079-0.236 inch), and lubricate the throttle grip and the throttle cable.
4. Clean the carburetor, fuel tank.
5. Clean or replace the Air filter
6. Adjust the idle speed of the carburetor.
7. Remove the carbon deposits on the spark plug, and adjust the electrode gap of the spark plug to 0.6mm~0.7mm (0.023-0.027 inch).
8. Remove the battery and charge it.
9. Check and tighten all bolts and nuts of all exposed parts.
10. Check the tightness of all connections of the electrical system.
11. Adjust the engine valve lash: intake valve should be set to 0.03-0.05mm; exhaust valve to 0.05-0.07mm (0.002-0.003 inch)
12. Store the vehicle covered.

Level 2 Service and Maintenance

Level 2 Service and Maintenance should be performed every time after the vehicle runs 2000~4000 miles.

1. Drain oil and refill to correct level with the correct weight engine oil. Standard 15w-40 or synthetic 5w-40

2. Disassemble the top end cylinder assembly of the engine. Inspect for excessive wear and remove any carbon deposits from parts such as, the piston, piston rings, cylinder head and muffler. Lubricate and reassemble.

3. Check for excessive wear on the clutch friction lining, the rear brake shoes and front brake pads. Replace as needed.

4. Clean the carburetor, air filter, and fuel tank. Replace the fuel and air filter if needed. Inspect fuel and vacuum lines for pinches and any cracking or excessive wear. Replace as needed.

5. Clean the upper and lower bearings in the steering column and re-pack with grease.

6. Clean and lubricate all the cables on the vehicle and replace if any fraying or excessive wear is seen.

7. Flush the transmission and check all components and refill with new oil.

Level 3 Service and Maintenance

Level 3 Service and Maintenance should be performed every 5000~8000 miles:

1. Drain the engine oil and refill to the correct level with the correct weight engine oil. Standard 15w-40 or synthetic 5w-40

2. Ensure the emissions control and fuel system is clean and working correctly.

3. Ensure normal operation, of front and rear automatic clutches and the drive system.

4. Check whether there are any cracks, erosion, or serious wear on each gear tooth of the rear transmission box.

5. Disassemble the top end cylinder assembly of the engine. Inspect for excessive wear and remove any carbon deposits from parts such as, the piston, piston rings, cylinder head and exhaust port. Check the clearance between the piston and the cylinder wall, and the smaller head of the crank connecting rod and the piston pin.

6. Ensure the front and rear shocks are in good condition and their mounts are in good condition.

7. Ensure normal operation of the starter, instruments, and the rest of the electrical system.

8. Disassemble the vehicle and check the steering column, engine mounts and other substantial parts and make sure there is enough lubrication and that they're not worn down.

Service and Maintenance of the Carburetor

For maximum performance and reliability, it is important the carburetor is maintained and adjusted properly. Failure to do so will affect starting; idle, as well as the overall vehicles performance.

The carburetor should be serviced and maintained as follows:

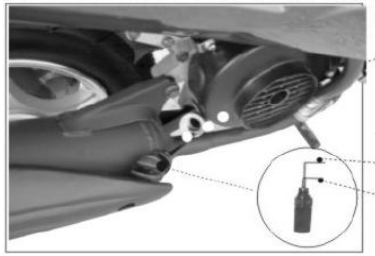
1. Regularly check the all connections and fittings on the intake assembly. Check the Carburetor, intake, T-pipe, cylinder head, cylinder block and intake port of the crankcase, and ensure that they are tight and properly sealed. Any air leaks will negatively affect the engines performance, and may cause top end engine damage by allowing an excessively lean condition to exist.
2. Inspect the fuel and vacuum lines for any ageing, weathering or other deterioration, replace if any is found
3. Start and drive your vehicle often. Add a carb cleaner to your fuel every 500 miles or so to keep the carburetor clean and free of any build up from the fuel.
4. Gasoline left sitting for a long period of time will start to become "stale", breaking down into its base components as the more volatile compounds evaporate. The longer a vehicle sits the more likely the vehicle will develop carburetor issues because of this stale fuel. If the vehicle is to be stored for any length of time longer than 2 weeks, the fuel in the carburetor bowl and fuel tank must be drained from the vehicle into an approved container for use elsewhere. Failure to do so will result in a contaminated, "clogged" carburetor. This will cause hard starting and poor performance. The carburetor will then have to removed and thoroughly cleaned or, as in many cases, replaced.

Draining the fuel is quite simple. You will find a length of fuel line running from the bottom of the carburetor to a bracket on the frame. In that bracket, there will be a brass screw plug that when removed will allow fuel to drain out of the carburetor bowl. Fuel can then be easily syphoned from the fuel tank.

Check and Replacement of Lubricating Oil

With the vehicle on the center kick stand, unscrew the oil dipstick and wipe clean with a rag. Insert the dipstick, pull out, and check the level and color of the oil. The oil level should always be between the upper and lower oil level markings on the dipstick.

Following the service intervals in this manual, drain and replace the oil as necessary. The 17mm bolt on the bottom of the engine needs to be removed to drain the oil. Be sure to clean the mesh filter screen before reinstallation.



After the engine has drained completely, reinstall the mesh screen into the spring. Place the spring into the drain plug and reattach to the engine. Refill the engine with oil.

lower oil level mark
upper oil level mark

⚠ Caution

Checking and Replacing Engine Oil

To ensure an accurate reading when checking the engine oil, place the vehicle on the center kickstand. Only check the oil level after the engine has been shut off for at least 5 minutes. Be aware the engine and engine oil will be extremely hot if the engine has been running. It is recommended you allow the engine to cool for at least 30 minutes after a long drive before checking.

-Remove oil cap. Note if there is oil on the dipstick. A lack of oil on the dipstick indicates a low oil level.

-Wipe the dipstick clean and insert into engine. Quickly withdraw the dipstick and note the oil level. If there is no oil on the dipstick, oil will need to be added.

-Note the color of the oil. Very black oil indicates the oil must be drained and replaced.

-To drain the engine oil, loosen the 17mm oil drain plug on the bottom right hand side of the engine, directly underneath the black engine shroud.

-Allow oil to drain completely. Not allowing all the oil to drain will result in residual oil left in the crankcase which will alter the amount needed to fill the engine.

-Inspect oil filter and clean if necessary.

-Reattach oil drain plug with spring and filter installed.

-Fill with ~750m (25 oz) of 15W-40 (5W-40 if Synthetic) engine oil through the oil dipstick opening.

-Insert dipstick and withdraw to verify correct oil level.

-Tighten dipstick and inspect for leaks.

Service and Maintenance of the Spark Plug

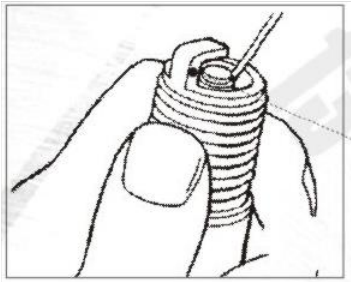
It is normal for the spark plug to be light brown. This indicates a proper air fuel mixture.

Check the electrode gap of the spark plug with a gauge and adjust the gap to 0.025 inches.

Remove the spark plug from the engine. If the color of the insulator skirt of the spark plug is brown it indicates that the carburetor is adjusted properly. Any signs of buildup on the plug should be noted as this could be a sign of an incorrect carburetor adjustment.

Cleaning the Spark Plug

Inspect the spark plug for carbon buildup. If there are noticeable deposits or wear on the spark plug, replace.



Correct spark plug gap helps fuel economy and performance. Incorrectly gapped spark plugs can lead to hard starting and poor performance. Always replace the spark plug with the original NGK replacement.

When removing and tightening the spark plug, be sure to use the correctly sized socket. Improper removal can result in spark plug damage that can result in costly repairs.

Service and Maintenance for the Air Filter

When dust builds up in the filter element of the air filter, it may result in increased resistance to the air flow through the intake system. This causes a rich gas mixture that can reduce power and increase fuel consumption. It is important the air filter be cleaned on a regular basis.

Take off the screws for the air filter cover, and remove the cover. Check whether there is dust and dirt on the sponge foam of the filter element. Remove the air filter and wipe off the dust inside the air filter housing with clean and dry cloth.

Paper based filters are a disposable item and just need to be replaced. You can find them at your Wolf Brand dealership Foam or cloth filter elements can be cleaned and reused numerous times. You can wash them in warm water and a simple detergent. Once dry you must treat them with a light oil before reinstallation for them to filter correctly.

Caution

* Do not use the following cleaning agents to clean paper filter elements: Gasoline, low ignition-point solvent, acid, alkaline or organic volatile oil.

Adjustment of the throttle grip

Check whether the free travel of the throttle is within the correct range and adjust it if necessary. Please follow the following steps to adjust the free travel.

1. First, loosen the locking nut.
2. Spinning the regulator will extend or shorten the free travel of the throttle.
3. When the desired setting is reached, tighten the locking nut, and slide the protective covering back over the regulator.

The throttle grip should work smoothly. Any signs of sticking or binding should be addressed prior to riding the vehicle.

Adjuster

Service and Maintenance for the Front Brake

Most models use a front disc brake, which features high heat dissipation and increased performance.

Adjustment of the front disc brake

1. Place the vehicle on the main stand.
2. Adjust the regulating nut of the front brake to adjust the free travel of the front braking handgrip to 1/4 –1/2 of an Inch.

Adjust the free travel of the front braking handgrip to between ¼ to ½ an inch.

Check the travel of the brake lever when applied. Excessive travel could indicate worn pads or air in the brake fluid. Both which would need to be addressed by replacing the pads, or bleeding the brake assembly prior to riding.

Disc brake

* Check for the wear on the front disc rotor. Any signs of warping or irregularities in the surface of the brake rotor can cause vibration, lower braking force, and increase the stopping distance of the vehicle. Replace when needed.

Service and Maintenance for the Rear Brake

Adjustment of the rear drum brake:

* First, use the main stand to prop up the rear wheel of vehicle and then adjust the free travel of the rear brake screwing in or out the nut on the end of the rear brake cable.
* Apply the rear brake several times. Each time it should release freely without binding or sticking. Spin thee rear wheel assembly to check whether the wheel rotates freely.
* Always keep the cables and fittings clean and free of debris. Keeping the cables lubricated will improve service life.

When applying the rear brake, ensure the wheel stops spinning within the recommend length of free travel. On rear brake cable equipped models, turn the brake adjustment fitting at the bottom of the cable clockwise to tighten the cable and reduce free travel. If you run out of adjustment, please take your vehicle in to an authorized service center for servicing.

Use the main stand to prop the vehicle up, and adjust the free travel of the rear brake between ¼- ½ inch.

Adjustment of the rear braking light

* It is important to always check the vehicle lights and make sure they are properly functioning prior to using the vehicle. The brake light can be inspected with the ignition turned to the on position, and the left brake handle pressed.

To gain access to the brake switches the left and right side controls must be removed as well as the brake handles. This can be performed at your local authorized service center.

Adjustment of the idle speed

If the vehicle stalls out during normal operation due to the engine speed being low, the idle speed can be adjusted:

* Before adjusting the idle, make sure the engine has reached normal operating temperature.

* Place vehicle on the main stand. While the vehicle is running adjust the idle until the specified value.

Adjust the idle speed screw here. Turning clockwise will raise the idle; counter clockwise will lower the idle.

Service and Maintenance for Front and Rear Tires

Prior to riding always inspect the tires. Make sure the front and rear tire are filled to their recommended pressure. Always check air pressure when tires are cold. Proper tire inflation increases riding comfort and the stability of the vehicle while prolonging the service life of the tires. Air pressure should be checked when tires are cold.

Tire specification/air pressure	Front wheel	3.50-10 tire @32-40PSI
	Rear wheel	3.50-10 tire @32-40PSI

Check the air pressure of the tire and visually inspect the rubber tire and rim for excessive wear or defects. If there are any issues, the tire should be replaced at a local authorized service center.

Removal and Installation of Front Wheel

* With the engine off, place the vehicle on the center kickstand.
* Remove the nut off the front wheel bolt. Slide the bolt out while making sure to retain all hardware including wheel spacers, and speedometer hub.

Caution:

* Do not use the front brake with the wheel removed.
* Check fluid level and top off if needed. Verify that the wheel spins freely with no brake drag.

WARNING:

* Always re-torque the front wheel nut to 40-50 ft. lbs.

Failure to properly torque the front wheel nut can lead to serious injury!

Removal and Replacement of the Rear Wheel

* Turn the engine off.
* Place vehicle on center stand and remove muffler.
* Loosen the rear wheel nut, and remove the rear wheel.

Installation precautions:

* Torque the rear wheel nut to 40-50ft lbs. and reinstall muffler.
* Verify the rear brake is adjusted properly.

If the tread depth in the middle of the tire reaches the following limits the tire must be replaced immediately.

Minimum limit of tread depth	Front wheel	2.0mm (0.079")
	Rear wheel	2.0mm (0.079")

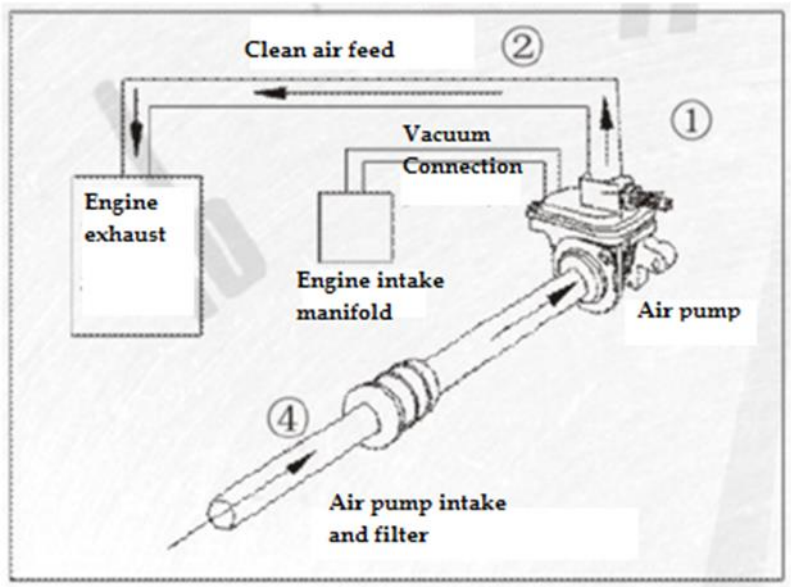
Check the tread wear depth of the tire and inspect for damage. If any abnormality is found, the tire must be replaced immediately.

Warning

* Low tire pressure will increase the rolling resistance of the vehicle, increase fuel consumption, and wear the tire prematurely. In more severe cases is can lead to flat tires. Always check tire pressure prior to riding.
* Excessive tire pressure will cause uneven tire wear, increase the risk for blow outs, and decrease vehicle stability.

Service and Maintenance for the Environmental Protection Device

Vehicle operators must conduct regular service and maintenance of the environmental protection system to ensure the best performance of the assembly. With proper and regular service and maintenance, we can promptly eliminate faults, prolong the service life of the environmental protection system, reduce the maintenance costs, and realize the goal of being environmental-friendly by reducing your vehicles fuel consumption.



⚠Caution

The air pump of the environmental protection device must be serviced and maintained by a professional motorcycle repair shop or the dealer's after-sales service personnel (make sure not to adjust the air pump without authorization)

① Regularly check the clamp for the intake vacuum hose, the clamp for the clean air feed, and the mounting bolt for the metal air pump intake pipe. If they are loose, tighten them.

② Regularly check whether there is any aging, air leakage or damage on the intake vacuum hose and the plastic clean air feed hose. If any, replace damaged hose

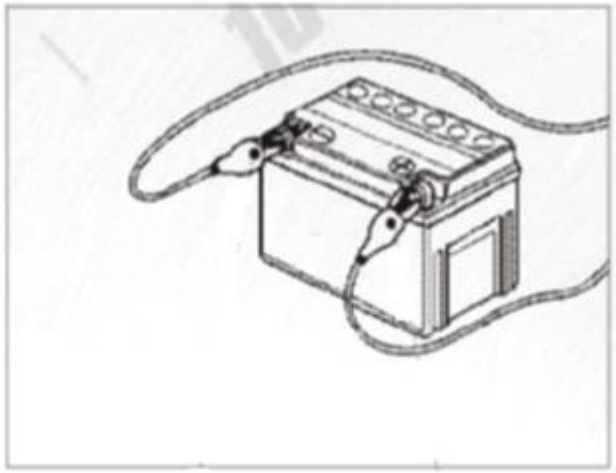
③ Regularly check the working conditions of the air pump of the environmental protection device. If it is blocked or is not working properly, replace the air pump.

④ Regularly check the air filter. If any dust or dirt is found, the air flow into the system will be reduced, thus changing the concentration of the gas mixture in the exhaust. This will increase fuel consumption and must be changed

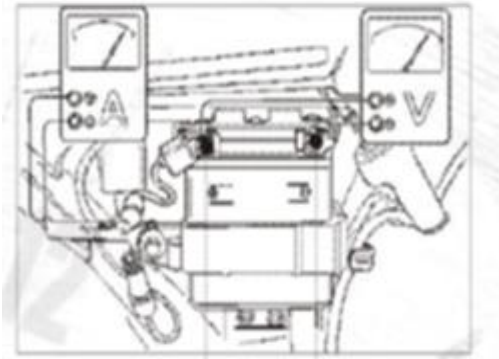
Service and Maintenance for the battery

In this model, the battery is mounted under the floor mat. For the first 500 to 1000 miles of the vehicle, the battery should be serviced and maintained as follows:

1. Keep the battery clean of corrosion.
2. Make sure the positive and negative cable tight.
3. If the vehicle is not going to be used for more than 2 weeks, the battery should be disconnected and maintained on a trickle charger.



Make sure the positive and negative cable connections are clean and tight



When checking the voltage of the battery, a reading of less than 12 volts indicates that the battery needs to be charged. You should also load test your battery to ensure the battery does not need to be replaced. This can be done at most auto parts stores.

If your battery is showing a voltage level less than 12v, and passes a "load test" charge it on a battery charger.

Service and Maintenance for the Fuse

The fuse is connected in series to the battery. If there is a sudden power surge or issue within the electrical system, the fuse will automatically break to protect the battery and other electrical components. The size of this fuse is 15A

If the entire electrical system of the vehicle is not functioning, check the fuse first. A blown fuse will cause all electrical components including the electrical start to stop functioning.

Caution

* In the event of a blown fuse, the cause should be found right away as it is indicative that there may be a more serious electrical problem present. In this situation, please bring the vehicle to your authorized WOLF Brand Scooters dealer for service.

Service and Maintenance for the Horn

Over time the horn may need to be adjusted. By removing the front panel, you can access the horn and adjustment screw.

If the horn sound becomes weak or isn't working at all, remove the front cover, use a multi-meter to measure the output voltage of the horn circuit. You must do this with the ignition turned on. You should measure 12 Volts. If that is the case, then use the adjustment screw in the middle of the horn to get the correct horn sound. If you do not get a correct reading from the multi-meter on the horn circuit, you should have the vehicle check out by your local WOLF Brand Scooter Dealer.

Long Term Storage of the Vehicle

For vehicles that will needs to be parked for more than one month, the following steps should be taken:

* Drain all the fuel from the fuel tank and the carburetor. The Fuel system can be completely drained by running the engine until it stalls after draining the fuel tank. This will not only empty the carburetor of any fuel that might become "stale" but the fuel lines as well.
* Remove spark plug. Pour 5mL clean lubricating oil into the cylinder. Use the kick-start arm to turn the motor over several times to evenly distribute the lubricating oil throughout the cylinder and combustion chamber. Re-install the spark plug.
* Remove the battery, and store it in a dry, dark, indoor, climate controlled environment. Place the battery on a trickle charger to maintain a good charge.
* Wash the vehicle clean and dry with soft cloth or chamois. Wax the painted surfaces, and apply a film of anti-rust oil to the chrome surface.

1) Fill the tires with air to the specified P.S.I
2) Cover the vehicle, and park it in a dry, clean, dark well-ventilated, place, away from any hazardous materials such as flammables or chemical corrosives.
3) Re-use after Storage
4) Clean the vehicle. Replace the engine oil if vehicle has been stored for more than 4 months, regardless of mileage
5) Test the battery.
6) Refill the fuel tank with fresh gas.
7) Perform an inspection on the vehicles brakes, lights, tires, and check for any fluid leaks.

Service and Maintenance Interval Table

Regular Service and Maintenance is generally based on the reading of the odometer. If the vehicle is being used in harsh conditions or under load for long periods of time, the service and maintenance interval should be appropriately shortened.

Times of service and maintenance / Items of service and maintenance		Item / Interval	Odometer				
			500 Miles	1500 Miles	3000 Miles	4500 Miles	Remarks
	Fuel system		C	C	C	C	Items marked ※※ can only be serviced and maintained by an authorized Wolf Brand Scooter service center. When driving in a very humid or very dusty environment, the service and maintenance interval should be shortened accordingly.
	Fuel filter		C	C	C	C	
	Throttle cable		A	A/C	A/C	A/C	
※※	Carburetor		C	C	C	C	
	Air filter		C	C	C	C	
	Spark plug gap		A/C	A/C	A/C	A/C	
※※	Valve lash		A	A	A	A	
	Engine oil		R	R	R	R	
	Oil filter screen		C	C	C	C	
※※	Timing chain		I	A	A	A	
	Carburetor idling		A	A	A	A	
※※	Drive belt		-	A	R	R	
	Battery		B	B	B	B	
	Brake shoe		I	A	A	R	
※※	Braking system		A	A	A	R	
	Brake light switch		A	A	A	A	
	Lighting system		I	I	I	I	
※※	Clutch		I	I	I	I	
※※	Shock absorber		I	I	A	A	
	Nuts and bolts		G	G	G	G	
	Front and rear tire hardware		I	I	I	I	
	Throttle grip		I	A	A	R	
A-Adjustment C-Cleaning I-Inspection R-Replacement G-Tightening B-Battery Charging							

Service and Maintenance Interval Table for Lubricated Parts

Name	Model	Odometer reading							
		500	1000	2000	4000	8500	10500	15000	20000
Engine oil	SAE 15W-40 (5W-40 if Synthetic)	R	R	R	R	R	R	R	R
Brake Cables	Multipurpose lithium-based lubricating grease	-	-	R	R	R	R	R	R
Brake fluid	DOT3 or DOT4	-				R	-		
Lubricating oil for front shock absorber	Lubricating grease for shock absorber	-	I	I	I	T	I	I	I
Tachometer gear	Multipurpose lithium-based lubricating grease	-			I	R	I	R	I
Steering stem and bearings	Multipurpose lithium-based lubricating grease	-				I	-	R	-
Bearings for front and rear wheels	Multipurpose lithium-based lubricating grease	-			I	R	I	R	R
Rear braking swing arm	Multipurpose lithium-based lubricating grease	-				I	-	I	-
I-Inspection R-Replacement T-Addition									

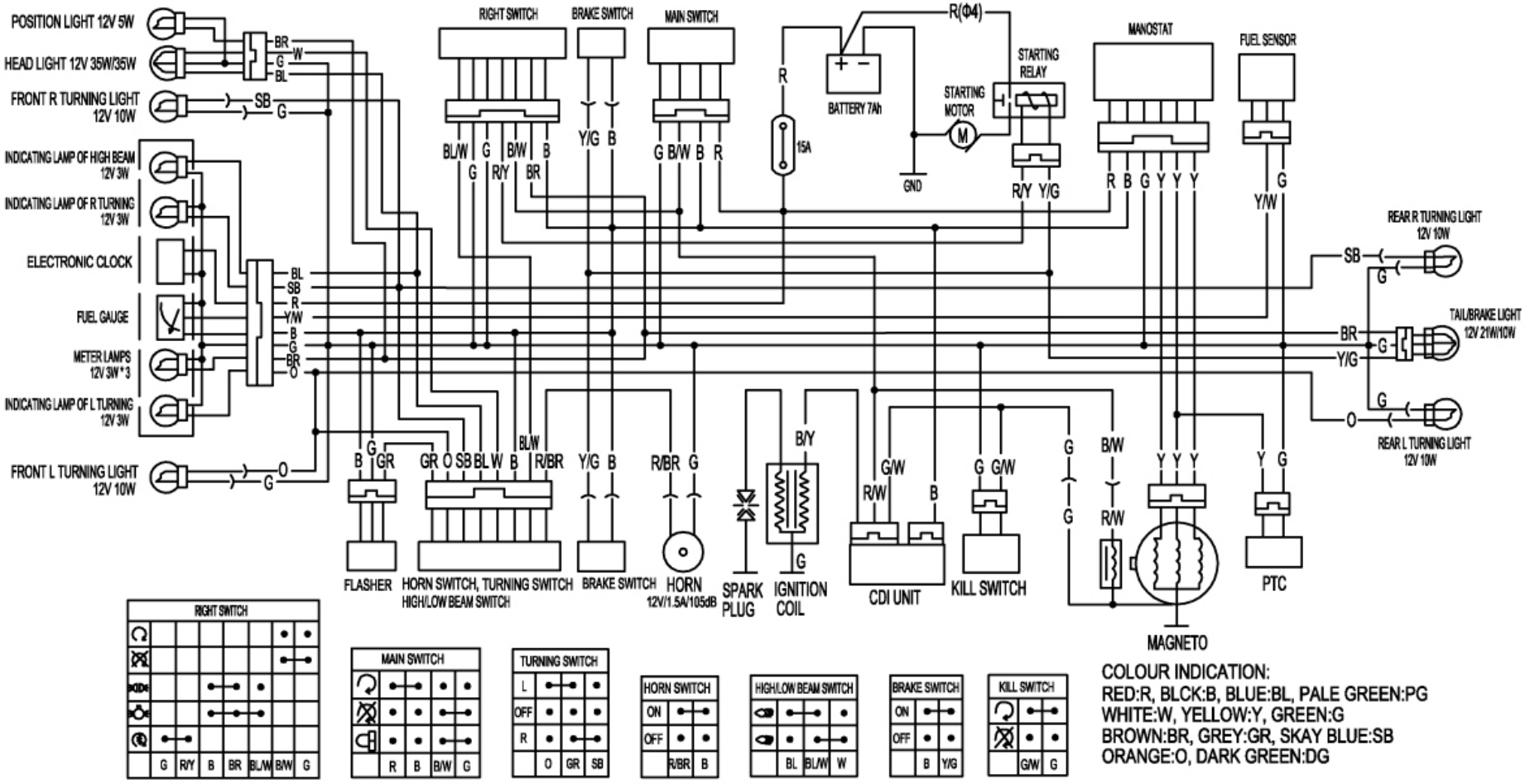
Table

Fault system	Fault	Causes	Troubleshooting
Fuel system	The engine won't start.	Fuel not entering the carburetor.	Check the fuel lines.
		The fuel is not flowing from the tank.	Clean the tank and replace fuel shut off valve.
		The vacuum lines are pinched or leak.	Check vacuum lines and replace if needed.
		The fuel line is clogged.	Replace fuel lines.
		The vacuum line is blocked.	Unblock the vacuum lines.
	The vehicle is difficult to start or you notice a sudden loss of fuel economy.	The carburetor is blocked.	Clean or replace the carburetor.
		The air/fuel mixture is not correct.	Readjust the mixing ratio and concentration of the carburetor.
		The carburetor leaks.	Clean the carburetor or replace the carburetor float.
		The fuel filter is blocked.	Clean the fuel filter.
		The throttle of the carburetor is worn.	Replace the throttle.
		The fuel is bad.	Replace the fuel.
		The air vent of the fuel tank is blocked.	Remove blockage in air vent of the fuel tank.
		Low fuel.	Add fuel to the fuel tank.
Air intake/exhaust system	The vehicle is difficult to start.	The Air filter element is blocked.	Clean the air filter.
		The air filter leaks.	Replace the air filter.
		The air filter is dirty.	Clean the air filter.
		The air filter housing leaks.	Repair or change the air filter housing.
		Too much carbon build up at the exhaust port.	Clean the carbon build up at the exhaust port.
		The exhaust port leaks.	Replace the cylinder head.
		The muffler is blocked.	Replace the muffler.

Fault system	Fault	Causes	Troubleshooting
EPA Device	Emitted pollutants exceed applicable standards	Too much carbon is built up at the secondary air intake port. The air pump is blocked or damaged. The air pump filter is blocked or damaged. The intake rubber hose is leaking. The clamp is loose or damaged.	Clean the carbon buildup at the secondary air intake port. Replace the air pump. Replace the air pump filter. Replace the intake rubber hose. Replace the clamp.
Ignition system	Weak spark or no spark	There is carbon buildup on the spark plug. The spark plug gap is not gapped to specs. The insulation part of the spark plug is damaged.	Clean the carbon buildup on the spark plug. Adjust the gap to 0.6mm~0.7mm (0.025") Replace the spark plug.
		Short-circuit of the ignition coil C.D.I is faulty.	Replace the ignition coil. Replace C.D.I.
		The stator is faulty. The connection of the ignition system is loose.	Replace the stator. Check each connection.
Engine	The engine is hard to start or will not idle.	The cylinder head is leaking. The valves are not adjusted properly. The valves are bent.	Replace the cylinder head. Adjust the valves to .003 inches. Replace the valves.

Fault system	Fault	Causes	Troubleshooting
Engine	Compression ratio is too high.	There is too much carbon buildup in the combustion chamber and on the top of the piston.	Clean the carbon buildup in the combustion chamber and on the top of the piston.
	Excessive noise coming from engine.	The valves are not adjusted properly. The air valve is broken. The cylinder and piston are worn out.	Readjust the valve clearance. Replace the air valve. Replace the damaged internal engine parts.
	The cylinder compression is too low.	The cylinder, piston, rings, valves, piston damaged.	Replace the cylinder, piston, piston rings, valves and valve seats.
	Excessive smoke from muffler.	Oil is leaking past the piston rings Oil is leaking past the valves seals There is excessive wear on the piston or cylinder wall.	Replace the piston rings. Replace the valve seals. Replace the piston or cylinder.
	The cylinder head leaks.	The valves need to be reseated.	Dress up the valve and valve seats
Front Wheel	The front wheel vibrates.	The front shock absorber is damaged. The front wheel is damaged. The triple tree is bent. The front wheel is improperly mounted. The front wheel bearings are worn out or damaged.	Replace the front shock absorber Replace the front wheel. Replace the triple tree. Replace the front tire. Replace the front wheel bearings.
	The front wheel has play in it.	The front wheel is damaged. The front wheel nut is loose. The tire pressure is too low.	Replace the front wheel. Tighten the front wheel nut to specs. Increase the tire pressure.

Fault system	Fault	Causes	Troubleshooting
Rear Wheel	The rear wheel vibrates	The rear wheel is damaged. The tire pressure is too low. The rear wheel nut is loose.	Replace the rear wheel. Increase the tire pressure. Tighten the rear wheel nut to specs.
Suspension system	The shock absorber no longer rebounds	The shock absorber spring is worn out.	Replace the spring.
		The shock absorber is improperly adjusted.	Re-adjust the shock absorber.
Braking system	Poor braking performance	The master cylinder has air in it. The brake pads/shoes are worn out. Contaminated or old brake fluid.	Bleed the brake lines. Replace the brake pads or brake shoes. Adjust the rear brake cable Flush and bleed brake lines.
Lighting system	The head light will not turn on	The head light bulb is burnt out. The headlight switch is faulty. The connecting plug is loose. The fuse is burnt out. The battery is faulty.	Replace the headlight bulb. Inspect headlight switch wires or replace. Check the plug connector. Replace the fuse. Charge or replace battery.
		Stator issues	Check stator connections or replace.


POSITION LIGHT 12V 5W
HEAD LIGHT 12V 35W/35W
FRONT R TURNING LIGHT 12V 10W
INDICATING LAMP OF HIGH BEAM 12V 3W
INDICATING LAMP OF R TURNING 12V 3W
ELECTRONIC CLOCK
FUEL GAUGE
METER LAMPS 12V 3W*3
INDICATING LAMP OF L TURNING 12V 3W
FRONT L TURNING LIGHT 12V 10W
RIGHT SWITCH
BRAKE SWITCH
MAIN SWITCH
BATTERY 7Ah
STARTING MOTOR
STARTING RELAY
MANOSTAT
FUEL SENSOR
REAR R TURNING LIGHT 12V 10W
TAIL/BRAKE LIGHT 12V 21W/10W
REAR L TURNING LIGHT 12V 10W
FLASHER
HORN SWITCH, TURNING SWITCH
HIGH/LOW BEAM SWITCH
BRAKE SWITCH
HORN 12V/1.5A/105dB
SPARK PLUG
IGNITION COIL
CDI UNIT
KILL SWITCH
PTC
MAGNETO
COLOUR INDICATION:
RED:R, BLCK:B, BLUE:BL, PALE GREEN:PG
WHITE:W, YELLOW:Y, GREEN:G
BROWN:BR, GREY:GR, SKAY BLUE:SB
ORANGE:O, DARK GREEN:DG