USER'S MANUAL

Instructions to Users

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Precautions

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

AWarning:

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

A Caution:

- * Please check the accessories and various documents delivered with the vehicle according to the packing list.
- * Strictly follow the recommended weight limit of the vehicle.
- * Do not modify any part of the vehicle. Modifying the vehicle can decrease engine life, vehicle reliability, and compromise your safety.
- * Only premium fuel should be used in the vehicle (90+ octane). Use of lesser rated fuel will compromise engine performance, fuel economy, the safety of the vehicle, 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 must be completed at a Wolf Brand Scooters authorized service center. All required service must be done to the vehicle to maintain the vehicle's warranty. Not completing required service will void the warranty.
- * Not completing required 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 obtain the registration and license plate for your new vehicle



The VIN is printed on the vertical tube of the frame Behind this small door on the knee panel.



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. Headlight
- 2. Left front turn light
- 3. Seat cushion
- 4. Rear carrier
- 5. Disc brake
- 6. Side stand
- 7. Center stand
- 8. Kick Start
- 9. Air filter



A Brief Introduction to your vehicle



- 1. Tail light
- 2. Helmet hook
- 3. Right front turn light
- 4. Silencer
- 5. Battery
- 6. Front brake lever

A Brief Introduction to your vehicle

- 1. Rearview mirror
- 2. Left grip
- 3. Left switch assembly
- 4. Instrument cluster
- 5. Ignition
- 6. Right switch assembly
- 7. Throttle grip



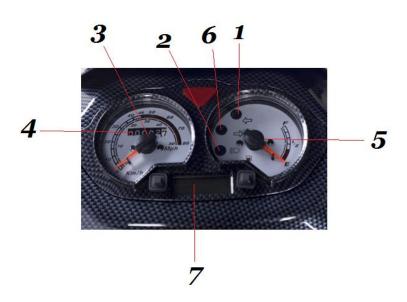
Technical Specifications

Engine	QMB139 Long Case
Displacement	49cc (Single Cylinder, 4 Stroke)
Cooling System	Air Cooled
Compression Ratio	10.2:1
Bore x Stroke	39mm x 41mm
Max Power	2.99 HP @ 7500 RPM
Max Torque	3.10 Nm @ 5500 RPM
Idle Speed	1600 RPM (+/- 100)
Engine Oil	15W/40 or 5W/40 Fully Synthetic
Gearbox Oil	SAE 80W/90
Transmission Type	CVT (Continuously Variable Transmission)

Technical Specifications

Belt Size	729 - 17.5 - 30
Ignition Type	CDI (Capacitor Discharge Ignition)
Spark Plug	NGK C7HSA
Battery	12 Volt - 7 Amp (YTX7A-BS)
Starting System	Electric / Kick
Front Tire	120/70 - 12 (Set to 40 psi)
Rear Tire	120/70 - 12 (Set to 40 psi)
Brakes (Front/Rear)	Disc / Drum
Scooter Dimensions LxWxH	68" x 27" x 42"
Seat Height	31"
Fuel Tank Capacity	1.66 Gallons
Fuel Economy	90+ MPG
Scooter Weight	205 lbs

Instrument cluster



1 Left turn signal indicator lamp:

When the turning indicator lamp "\(\bigcap \)" flashes, it indicates that the "Left Turn signal" is on.

2 High beam indicator lamp:

When the high beam indicator lamp "" 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 accumulated miles travelled.

5 Fuel gauge:

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

6 Right turn signal indicator lamp:

When the right turning indicator lamp "\(\sigma\)" flashes, it indicates that the "Right turn signal" is on.

7 Clock

Left switch assembly



1 Headlight High beam lamp switch:

To use the "High beam lamp", set this switch to the upper "". position

2 Headlight Low beam lamp switch:

To use the "Low beam lamp", set this switch to the lower "

". position

3 Horn button:

To use the horn, press the "> " button

4 Turn signal switch:

When making a turn with the vehicle, move this switch to "\(\bigcup \)" or "\(\bigcup \)" to signal to other motorists that you are turning left or right. When you complete your turn, press the center white button to switch the turn signal off.

Right switch assembly



1 Electric start button:

When you want to start the vehicle, press the "()" button while holding in a brake lever.

2 Throttle grip:

When the engine is on, twist this grip towards yourself to accelerate the vehicle. To decelerate twist the grip away from yourself

3 Cut Off or Run/Stop Switch:

Electrical power for the engine is turned on when the switch is set to The position marked "\sqrt{"}"

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

Electrical power to Engine is turned off when the switch is set to the position marked "\overline""

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

Ignition Switch







1) Ignition On:

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

2) Ignition Off:

Turn the ignition lock to "\overline" to switch off the electrical system of the motorcycle. 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 "\(\hat{\text{\text{\text{\text{L}}}}\)" to lock the steering. The key can then be removed.

When the vehicle is parked, as described in detail #3, turn the Ignition lock switch to "\(\hat{\pi}\)" to lock the steering to help prevent the vehicle from being stolen

Seat Storage Lock



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

Fuel tank

The capacity of the fuel tank is 1.27 Gallons.

Opening the fuel cap: Flip tab up, insert the key and turn the cap 90° counterclockwise.

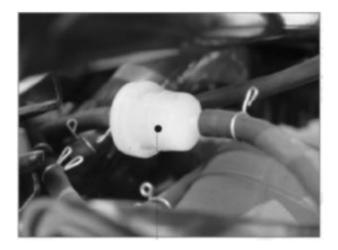


Closing the fuel cap: Insert the fuel cap in the fuel tank opening and turn it clockwise. Once it is closed fully, you can remove the key and flip the tab down.

Fueling your Vehicle



Bolt on fuel valve or switch: this valve is opened by the vacuum pressure produced by the engine, it allows fuel to enter the carburetor via gravity. It closes when the engine turns off.



Fuel filter: This is positioned in the main fuel line, the fuel passes through here between the fuel tank and the carburetor to ensure clean fuel is entering the carburetor.

AWarning

- * Don't fill fuel above the neck, or "top off" the 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 close to 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 fuel or above should be used.

Vehicle operation.

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 uses a disc brake.



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



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

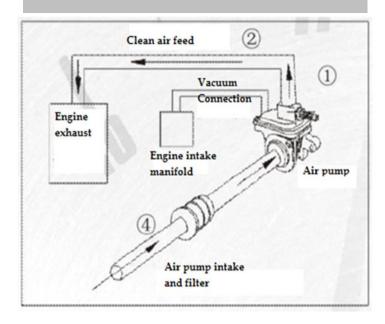


Kick Starter: This is used for manually starting the engine. The vehicle must be on the main stand, the ignition must be on and the brake levers need to be held in while you kick start the engine.

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 Motorcycles (Stage III, under the running mode)

Unit:g/km

Emitted pollutants	Two-wheel motorcycle
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 motorcycle/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 \leq 4.0%; and the volume concentration of emitted HC is \leq 1000×10-6.

Vehicle Load Limits

The maximum load limit of 330 lbs. must be strictly observed. This includes the rider, their gear and any luggage. Otherwise, the safety and stability of the vehicle may be affected.

- * Belongings in the rear storage box must be secured to prevent movement while operating the vehicle.
- * NEVER hang anything on the handle bars while operating your vehicle. This will dangerously compromise the handling of the vehicle
- * The load of the rear carrier must never exceed 12lbs.



Tool kit (Included)

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



Your tool kit will be found stored in the under-seat bucket area.

13×15 Double-ended spanner

Spark plug socket

Double-ended screw driver



8×10
Double-ended spanner

Double-ended screw driver holder

Vehicle checks and Maintenance levels

There are regular 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. Keeping it in good condition will also help in maintaining the vehicle's optimal performance.

- 1. When starting the engine 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 until it reaches operating temperature
- Check for any fluid leakage.
- 3. Check for any loose electrical connections.
- 4. Check to ensure that all lights are working.

Different levels of maintenance and service will be taken for different odometer readings and performance conditions of the vehicle:

The very first oil change should be done between 300~500 miles to replace the "break-in" oil with fresh oil. 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 nuts and bolts and secure if 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 nuts and bolts and secure if 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 secure if 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 THE WARRANTY DOES NOT GET VOIDED

Pre-operation vehicle checks

Before running the vehicle, please follow the following steps to check it, to ensure good performance of the motorcycle 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.



Ensure you have enough gas for your trip and ensure the gas cap is secured properly.



Check your vehicles oil levels before any trip.
Always make sure your engine has the correct amount of lubrication oil. See the "Service and maintenance section for how to make this check



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

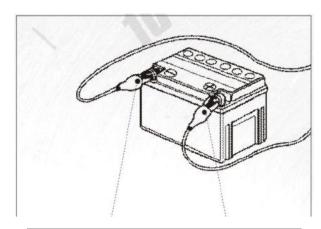


Check that the throttle grip rotates smoothly and freely. If not, the throttle cable may need lubrication or replacing.

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Check for any fluid leaks under the engine.



Check the terminals on the battery to ensure they both are making good connection.



Check the pressure of the front tire. Set to between 35 and 40 Psi. Check for abnormal wear on the tire tread and outer walls.

Always check air pressure when tires are cold



Check the pressure of the rear tire. Set between 35 and 40 Psi. Check for abnormal wear on the tire tread and outer walls.

Always check air pressure when tires are cold

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The throttle grip should have a slight amount of free play in it. About 10-20 mm.(0.394-0.787 inch)



Check that the rear brake lever has the correct amount of free play in it. About 20-30 mm. (0.787-1.181 inch)



Check that the head lights, and turn signal lamps work properly.



Check that the tail light and brake lights work properly.

Using the kick starter



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.

Using the Electric Starter

The duration of each electric startup should not exceed 5 seconds, and the interval between any two electric startups should not be less than 10 seconds. If 3 startup attempts fail consecutively, the motorcycle must be checked.



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



Hold in either the rear brake handle.



Or hold in the front brake



While holding either brake handle, push the electric start button with your right thumb. Use the accelerator a small amount with your right hand to add an appropriate amount of fuel.

Parking the vehicle



When you come to park the vehicle, you have 2 different ways to park it. The Side stand or 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 mechanical parts. Regular maintenance will prolong the life of the vehicle.

Requirements on Service and Maintenance

- Keep the engine clean, and 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. Ensure that the brakes work well and meet necessary requirements and 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.
- 5. The air pressure of the tire should be set to 35-40 P.S.I. Always check air pressure when tires are cold.
- 6. Check for loose electrical connections throughout the vehicle.

- 7. All mechanical parts should be lubricated.
- 8. The connections to the battery terminals should be clean and tight and the battery should be secured properly.
- 9. Any corrosion to the 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 vehicles life, the driving speed should not exceed 30 MPH, and the rider should vary your speed regularly.

Service and Maintenance during the break in period

- 1. Within the break-in period, replace the oil and clean the oil filter screen, every 300-500 miles.
- 2. Regularly check for loose electrical connections, and tighten if found.
- 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, and the free travel of the front and rear brakes, the throttle grip, and the handle bars movement from left to right. Adjust them if necessary.
- 5. Within the break-in period, only ride the vehicle after the engine is completely warmed up. Run it at low speed for the first mile, 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. Within the break-in period, carrying any unnecessary weight should be avoided. The load on the vehicle should not exceed 80% of the maximum payload, otherwise, the drive train will wear faster.
- Try to avoid heavy braking and braking for long periods of time.
- 9. Strictly regulate the speed of your vehicle, varying the speed regularly while riding. Stay under 30 MPH

Contents of Level 1 Service and Maintenance

Level 1 Service and Maintenance should be performed every time after the vehicle runs 500~1000 miles.

- 1. Drain the engine oil and clean the filter screen. Refill to the correct level with the correct weight motor oil. Standard 15w-40 or synthetic 5w-40
- 2. Adjust the travel of the front brake handle to 10mm~20mm (0.394-0.787 inch), and adjust the rear brake handle to 20mm~30mm (0.787-1.181 inch).
- 3. Adjust the travel of the throttle cable to 2mm~6mm (0.078-0.236 inch), and lubricate the throttle grip and the throttle cable.
- 4. Clean the carburetor, fuel tank, oil filter screen and air filter.
- 5. Adjust the idle speed of the carburetor.
- 6. Remove the spark plug from the head and clean any carbon deposits off the plug, adjust the electrode gap of the spark plug to 0.6mm~0.7mm (0.025").
- 7. Remove the battery and charge it.
- 8. Check and tighten all nuts and bolts for all exposed parts.
- 9. Check the tightness of all electrical connections.
- 10. Adjust the engine valve lash: intake valve to 0.03-0.05mm (0.001-0.002 inch); and the exhaust valve to 0.05-0.07mm (0.002-0.003 inch).
- 11. Always store the vehicle under the best possible conditions.

Contents of 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 1. 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, and cylinder head. Lubricate and reassemble.
- 3. Adjust the engine valve lash: intake valve to 0.003-0.005mm (0.001-0.002 inch); and the exhaust valve to 0.005-0.007mm (0.002-0.003 inch).
- 4. Check for excessive wear on the clutch friction lining, the rear brake shoes and front brake pads. Replace as needed.
- 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.
- 6. Clean the upper and lower bearings in the steering column and re-pack with grease.
- 7. Clean and lubricate all the cables on the vehicle and replace if any fraying or excessive wear is seen.
- Flush the transmission and check all components and refill with new oil.

Contents of Level 3 Service and Maintenance

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

- 1. Drain oil and refill to correct level with the correct weight engine oil. Standard 15w-40 or synthetic 5w-40
- 2. Ensure the emissions system is working correctly.
- 3. Ensure the electric starter is working.
- Ensure normal operation, of front and rear automatic clutches and the drive system.
- 5. Check whether there are any cracks, erosion or serious wear on each gear tooth of the rear transmission box.
- 6. Disassemble the engines top end, remove any carbon deposits from the cylinder head, piston top, piston ring 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.
- 7. Adjust the engine valve lash: intake valve to 0.003-0.005mm (0.001-0.002 inch); and the exhaust valve to 0.005-0.007mm (0.002-0.003 inch).
- 8. Ensure the front and rear shocks are in good condition and their mounts are in good condition.
- 9. Ensure the fuel system is running cleanly.
- 10. Ensure normal operation of instruments and the electric system.
- 11. Disassemble the and check the steering column, engine mounts and other major parts and make sure that they're not excessively worn. Re-lubricate and reassemble.

Service and Maintenance for 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:

 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 cracking, weathering or other deterioration, replace if any is found
- 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 tank.

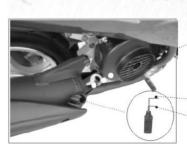
Check and Replacement of Lubricating Oil



With the vehicle on the center 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 Upper oil level marking

A 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 ~750mL (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



Check the electrode gap of the spark plug with a gauge and adjust the gap to 0.025 inches (0.6-0.7mm) It is normal for the spark plug to be light brown. This indicates a proper air fuel mixture. 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. These are pre-gapped from the factory



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 the filter element of the air filter is blocked by dust, it may result in increased resistance of the air intake system which leads to a rich gas mixture that can reduce power and increase fuel consumption. It is important the air filter be cleaned on a regular basis.



Remove the screws for the air filter cover, and remove the cover. Check whether there is dust and dirt on the foam of the filter element. Remove the air filter and wipe off the dust inside the air filter 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.



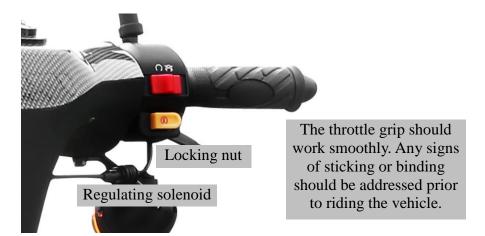
A Caution

* 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

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

- 1. First, loosen the locking nut.
- 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.



Service and Maintenance for the Front Brake

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

Adjustment of the front brake

- 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 $1/4 \frac{1}{2}$ Inch.

Adjust the free travel of the front braking handgrip to \(^{1}\)4 and \(^{1}\)2 inch.



Service and Maintenance for the Front Brake



* Check the travel of the brake lever when applied. Excessive travel could indicate worn pads or air in the brake fluid. Either of which need to be addressed prior to riding.



* 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. Replace if 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 the vehicle and then adjust the free travel of the rear brake by screwing in or out the nut on the end of the rear brake cable.
- * Apply the rear brake several times. Each time the brake should release freely without binding or sticking. Rotate the rear wheel assembly to make sure that the wheel rotates freely.
- * Always keep the cables and fittings clean and free of debris. Keeping the cables lubricated will improve service life.



Use the support to prop up the motorcycle, and adjust the free travel of the rear brake between 1/4 - 1/2 inch. When applying the rear brake, ensure the wheel stops spinning within the recommend 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.



Checking rear brake light and the brake light switches:

* 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 and then right brake handle pressed. If the brake light fails to light for both brake levers the bulb is more than likely burned out. However, if it lights for one brake lever and not the other, this is more than likely a problem with the micro switch on the brake control lever in question and the micro switch will have to be replaced.

In order 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



Adjustment of the idle speed

If the vehicle stalls out during normal operation from the engine speed being too 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 correct RPM is reached. This is at the point when the rear wheel stops rotating.

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.

Tire specification/air pressure	Front wheel	120/70-12 32-40PSI
	Rear wheel	120/70-12 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 the fluid level in the Master Cylinder and top off if needed with DOT3 or DOT 4 brake fluid. 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 40-50 ft. 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	Front wheel	2.0mm (0.079")
tread depth	Rear wheel	2.0mm (0.079")



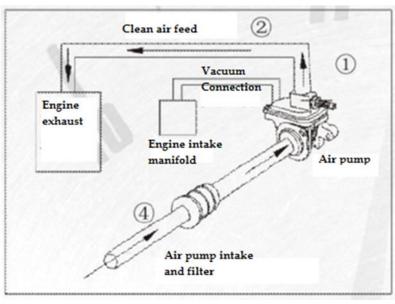
Check the tread wear depth of the tire and inspect for damage. If any abnormality is found, the tire must be replaced immediately.

ACaution

- * 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.



ACaution

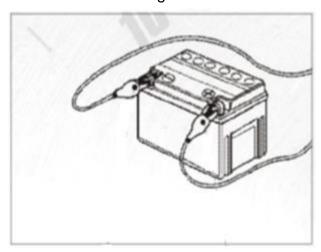
The carburetor of the environmental protection device must be serviced and maintained by a professional motorcycle repair shop or the dealer's after-sales service personnel. Make sure not to adjust the carburetor without authorization

- 1 Regularly check whether there is any aging, air leakage or damage to any of the hoses of this assembly. If any, is found, replace the hose in question immediately.
- 2 Regularly check the working conditions of the air pump of the environmental protection device. If the air pump is blocked or cannot work properly, replace the air pump of the environmental protection device.
- Regularly check the air filter. If dirty, change it immediately. Otherwise, the air flow through the assembly will be reduced, changing the ratio of the gasses in the exhaust passage, increasing emissions.

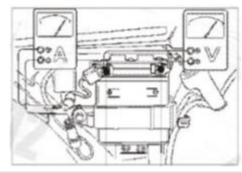
Service and Maintenance for the battery

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:

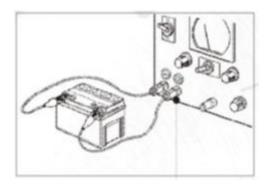
- 1. Keep the battery clean of corrosion.
- 2. Make sure the positive and negative cable connections are clean and tight.
- If the vehicle is not going to be used for more than 2 weeks, the battery should be disconnected from the vehicle and maintained on a trickle charger



Make sure the positive and negative cable connections clean and tight



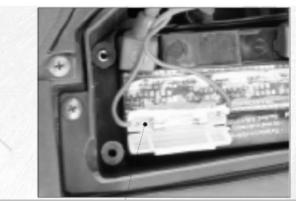
When checking the voltage of the battery, a reading of less than 12 volts is not normal. You should also "load test" the battery to determine if the battery needs to be replaced. or just charged. This can be done at most auto parts stores



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

Service and Maintenance for the Main Fuse

The main 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.



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.

A 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, and use a multi-meter to measure the voltage of the horn circuit. You must do this with the ignition turned on, and it should measure 12 Volts. If that is the case, you should 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 checked 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-starting arm to turn the motor over several times to distribute the lubricating oil evenly * throughout the cylinder and combustion chamber. Re-install * the spark plug.
- * Remove the battery, and store it in a dry, dark and 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.

- * Fill the tires with air to the specified P.S.I
- * Cover the vehicle, and park it in a dry, clean, dark, well ventilated place, far away from any hazardous material such as flammables or chemical corrosive.

Re-use after Storage

- * Clean the vehicle. Replace the engine oil if vehicle has been stored for more than 4 months, regardless of mileage
- * Check the battery.
- * Refill the fuel tank with fresh gas.
- * Perform an inspection on the vehicles brakes, lights, tires and check for any leaks.

Service and Maintenance Interval Table

Vehicle service and maintenance is based on its odometer reading. If the vehicle is being used in harsh conditions or under load for long periods of time, the service and maintenance interval should be shortened accordingly.

Times of service and maintenan	ce Item			Odometer		
Items of service and maintenance	Interval	500 Miles	1500 Miles	3000 Miles	4500 Miles	Remarks
Fuel system		С	С	С	С	
Fuel filter		С	С	С	С	
Throttle cable		Α	A/C	A/C	A/C	
XXX Carburetor		С	С	С	С	
Air filter		С	С	С	С	
Spark plug gap		A/C	A/C	A/C	A/C	
XXX Valve lash		Α	A	Α	Α	Items marked ***
Engine oil		R	R	R	R	can only be serviced
Oil filter screen		С	С	С	С	and maintained by
XXX Timing chain		I	А	А	Α	authorized Wolf Brand
Carburetor idling		Α	A	Α	Α	Scooter service center.
XX Drive belt		-	Α	R	R	When driving in an
Battery		В	В	В	В	extremely humid or
Brake shoe		I	A	А	R	dusty place, the service and maintenance
Braking system		Α	A	А	R	interval should be
Brake light switch		Α	A	А	Α	shortened accordingly,
Lighting system		I	I	I	I	Shortened accordingly,
XX Clutch		I	I	I	I	1
Shock absorber				А	А	
Nuts and bolts		G	G	G	G	
Front and rear tire hardware		<u> </u>				
Throttle grip		1	A	A	R	
	A-Adjustment C-Cl	eaning I-Inspection F	R-Replacement G-Tigh	ntening B-Battery Cha	rging	

Service and Maintenance Interval Table for Lubricated Parts

Name	Model	Odometer reading							
Name		300-500	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	20w motorcycle fork oil	-	I	I	I	Т	I	I	I
Tachometer gear	Multipurpose lithium-based lubricating grease		-		I	R	I	R	I
Steering gear	Multipurpose lithium-based lubricating grease			-	I	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			-		ı	-	I	-
I-Inspection R-Replacement T-Addition									

Table

Fault system	Fault	Causes	Troubleshooting
		Fuel not entering the carburetor.	Check the fuel lines.
		The fuel is not flowing from the tank.	Clean the tank and replace fuel shut of valve.
	The engine won't start	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 carburetor is clogged.	Clean or replace the carburetor.
Fuel system		The air/fuel ratio is not correct.	Rejet the carburetor
	The vehicle is difficult to start	The carburetor leaks.	Replace the carburetor.
	The vehicle is difficult to start or you notice a sudden loss	The fuel filter is blocked.	Clean/replace the fuel filter.
	of fuel economy.	The throttle of the carburetor is worn.	Replace the Carburetor.
	of fuel economy.	The fuel is bad.	Replace the fuel. Clean the carburetor
		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.
		The Air filter element is blocked.	Clean the air filter.
		The air filter leaks.	Replace the air filter.
Air intake/exhaust	The vehicle is difficult to	The air filter is dirty.	Clean the air filter.
	start.	The air filter housing leaks.	Repair or change the air filter housing.
system		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
		Too much carbon is built up at the secondary air	Clean the carbon buildup at the secondary air
		intake port.	intake port.
EPA Device	Emitted pollutants exceed	The air pump is blocked or damaged.	Replace the air pump.
EFA Device	applicable standards	The air pump filter is blocked or damaged.	Replace the air pump filter.
		The intake rubber hose is leaking.	Replace the intake rubber hose.
		The clamps are loose or damaged.	Tighten/Replace the clamp.
		There is carbon buildup on the spark plug.	Clean the carbon buildup on the spark plug.
		The spark plug gap is not gapped to specs.	Adjust the gap to 0.025" or 0.6mm~0.7mm
		The insulation part of the spark plug is damaged.	Replace the spark plug.
Ignition system	Weak spark or no spark	Short-circuit of the ignition coil	Replace the ignition coil.
		C.D.I is faulty.	Replace C.D.I.
		The stator is faulty.	Replace the stator.
		The connection of the ignition system is loose.	Check each connection.
	The engine is difficult to	The cylinder head is leaking.	Replace the cylinder head.
Engine	start up and will not idle.	The valves are not adjusted properly.	Adjust the valves to .003 inches.
		The valves are bent.	Replace the valves.

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Fault system	Fault	Causes	Troubleshooting	
	Compression ratio is too	There is too much carbon buildup in the	Disassemble the engines top end and remove the	
	high.	combustion chamber and on the top of the piston.	carbon build up	
	Excessive noise coming	The valves are not adjusted properly.	Readjust the valve lash. The intake valve to 0.003 -0.005 mm; The exhaust valve to 0.005-0.007 mm.	
	from engine.	The air valve is broken.	Replace the air valve.	
Engino		The cylinder and piston are worn out.	Replace the damaged internal engine parts.	
Engine	The cylinder pressure is too low.	The cylinder, rings, valves, piston could be damaged.	Replace the cylinder, piston , piston rings.	
	Excessive smoke from muffler.	The piston ring could be damaged.	Replace the piston rings.	
		Oil leaking past the valves.	Replace the valve seals.	
		The piston or cylinder is excessively worn.	Replace the piston and cylinder.	
	The cylinder head leaks.	The valves need to be reseated.	Reseat the valves.	
		The front shock absorber is damaged.	Replace the front shock absorber	
	The front wheel vibrates.	The front wheel is damaged.	Replace the front wheel.	
		The triple tree is bent.	Replace the triple tree.	
		The front wheel is improperly mounted.	Remount/rebalance/replace the front tire.	
Front Wheel		The front wheel bearings are worn out or damaged.	Replace the front wheel bearings.	
		The front wheel is damaged.	Replace the front wheel.	
	The front wheel has play in it.	The front wheel nut is loose.	Tighten the front wheel nut to specs.	
		The tire pressure is too low.	Inflate the tire to the correct P.S.I.	
		The front wheel bearings are worn out or damaged	Replace the front wheel bearings.	

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

