# USER’S MANUAL

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## Common Faults and Troubleshooting

## Vehicle Wiring Diagram

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Precautions

Warning
* Please observe all traffic laws and regulations.
* All users must have a valid driver’s license. Operating a vehicle with a 150cc sized engine may require additional licensing endorsements. Please check your local motor vehicle laws to be sure.
* 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.

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. In addition, 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) is printed on the vertical portion of the frame.

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

The Engine Number is printed on the left lower side 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. Front storage box
3. Seat
4. Rear carrier
5. Disc brake
6. Center stand
7. Air filter
A Brief Introduction to your vehicle

1. Tail light
2. Rear view mirror
3. Helmet hook
4. Rear wheel
5. Muffler
6. Battery
7. Front brake
8. Front wheel
A Brief Introduction to your vehicle

1. Rearview mirror
2. Left handgrip
3. Speedometer assembly
4. Ignition
5. Throttle
## Technical Specifications and Performance Parameters

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displacement</td>
<td>150cc</td>
</tr>
<tr>
<td>Overall dimensions (L&quot;W&quot;H)</td>
<td>77&quot; x 28&quot; x 44&quot;</td>
</tr>
<tr>
<td>Wheelbase</td>
<td>54&quot;</td>
</tr>
<tr>
<td>Minimum ground clearance</td>
<td>6&quot;</td>
</tr>
<tr>
<td>Vehicle weight</td>
<td>260 lbs.</td>
</tr>
<tr>
<td>Maximum payload</td>
<td>330 lbs.</td>
</tr>
<tr>
<td>Engine model</td>
<td>157QMJ</td>
</tr>
<tr>
<td>Engine</td>
<td>Single-cylinder, four-stroke, air-cooled</td>
</tr>
<tr>
<td>Bore / Stroke</td>
<td>57.4mm x 57.8mm (2.26&quot;x2.27&quot;)</td>
</tr>
<tr>
<td>Cylinder</td>
<td>149.6 mL</td>
</tr>
<tr>
<td>Compression ratio</td>
<td>10.2:1</td>
</tr>
<tr>
<td>Carburetor</td>
<td>PD24J</td>
</tr>
<tr>
<td>Air filter</td>
<td>Sponge filter</td>
</tr>
<tr>
<td>Method of lubrication</td>
<td>Force-feed</td>
</tr>
<tr>
<td>Starting</td>
<td>Manual / Electric start-up</td>
</tr>
<tr>
<td>Maximum power</td>
<td>8.38 HP @ 7500 rpm</td>
</tr>
<tr>
<td>Maximum torque</td>
<td>6.9 ft. lb. / 5500 rpm</td>
</tr>
<tr>
<td>Minimum idling stabilized speed</td>
<td>(1700±100) rpm</td>
</tr>
<tr>
<td>Economic fuel consumption</td>
<td>80 miles per gallon</td>
</tr>
<tr>
<td>Travelling system</td>
<td></td>
</tr>
<tr>
<td>Model of shock absorber</td>
<td>Spring loaded</td>
</tr>
<tr>
<td>Drive</td>
<td>835-20-30 Belt drive</td>
</tr>
<tr>
<td>Tires specs</td>
<td>Front wheel 130/60-13” Rear wheel 130/60-13”</td>
</tr>
</tbody>
</table>
### Technical Specifications and Performance Parameters

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drive system</strong></td>
<td></td>
</tr>
<tr>
<td>Displacement</td>
<td>150cc</td>
</tr>
<tr>
<td>Clutch type</td>
<td>Dry-type automatic centrifugal clutch</td>
</tr>
<tr>
<td>Transmission type</td>
<td>Automatic</td>
</tr>
<tr>
<td>Front wheel</td>
<td>Aluminum alloy wheel</td>
</tr>
<tr>
<td>Continuous transmission ratio</td>
<td>2.66~0.866</td>
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<tr>
<td>Fixed transmission ratio</td>
<td>8.615</td>
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<tr>
<td><strong>Braking system</strong></td>
<td></td>
</tr>
<tr>
<td>Front brake</td>
<td>Disc brake</td>
</tr>
<tr>
<td>Rear brake</td>
<td>Drum brake</td>
</tr>
<tr>
<td><strong>Electric system</strong></td>
<td></td>
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<tr>
<td>Ignition way</td>
<td>CDI</td>
</tr>
<tr>
<td>Model of spark plug</td>
<td>NGK C7HSA</td>
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<tr>
<td>Spark plug gap</td>
<td>0.6mm~0.7mm (0.025”)</td>
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<tr>
<td>Battery</td>
<td>12VDC/ 7Ah</td>
</tr>
<tr>
<td>Fuse</td>
<td>15A</td>
</tr>
<tr>
<td>Head Light</td>
<td>12V 35W/35W</td>
</tr>
<tr>
<td>Tail light / Braking light</td>
<td>12V 5W/21W</td>
</tr>
<tr>
<td>Turning signal light</td>
<td>12V 10W × 4</td>
</tr>
<tr>
<td>Turn signal indication light</td>
<td>12V 1.7W × 2</td>
</tr>
<tr>
<td>Instrument cluster light</td>
<td>12V 1.7W × 2</td>
</tr>
<tr>
<td>Front Position Lamp</td>
<td>12V 5W</td>
</tr>
<tr>
<td><strong>Fuel &amp; oil</strong></td>
<td></td>
</tr>
<tr>
<td>Fuel tank</td>
<td>6.4 L (1.7 gal)</td>
</tr>
<tr>
<td>Engine oil</td>
<td>.9 L (30oz)</td>
</tr>
</tbody>
</table>
Instrument cluster

① Left turning indicator lamp:
When the left turning indicator lamp “textInput” flashes, it indicates that the “Left Turn signal” is on.

② Tachometer pointer:
It indicates the current engine speed of the vehicle.

③ High beam indicator lamp:
When the high beam indicator lamp “TextInput” is on, it indicates that the “High beam lamp” is on.

④ Speedometer:
It indicates the current driving speed of the vehicle.

⑤ Odometer:
It records the accumulated miles that the vehicle had traveled.

⑥ Fuel gauge:
It indicates how much fuel is left in the fuel tank of the vehicle.

⑦ Right turning indicator lamp:
When the right turning indicator lamp “TextInput” flashes, it indicates that the “Right turning signal” is on.
Left Switch Assembly

1. **High beam lamp switch:**
   When the high beam is needed, turn the lighting switch to the upper "charted" position.
2. **Low beam lamp switch:**
   When the low beam is needed turn the lighting switch to the lower "charted" position.
3. **Horn button:**
   Press the button "charted".
4. **Turn signal switch:**
   When making a turn with the vehicle, move this switch to "charted" or "charted" 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 Head Light switch:
   Turn the “Head Light switch” to the position "☀", to use the headlights.

② Electric start button:
   Press the button "️" to engage the starter when starting the vehicle.

⑤ Throttle:
   It is used to control the speed of the vehicle. Roll this grip towards you to accelerate and roll it away to decelerate.
Ignition Switch Lock

**Caution**

- When the vehicle is parked, please turn the Ignition lock switch to “□” to lock the vehicle steering. This will make theft of the vehicle more difficult.

Ignition lock on:
Turn the ignition lock key to the position “〇” to turn the electrical system on. Do not remove the vehicle key.

Ignition Lock Off:
Turn the ignition lock key to the position “△” to turn off the electrical system of the vehicle. The vehicle key can now be removed.

Handle bar safety lock:
Turn the handle bar to the left. Turn the ignition key to the position “□” to lock the handlebar in the safety position. Remove the ignition key.
Under-Seat Storage lock

Seat lock: Insert the ignition key into the left side panel and turn it 90° clockwise to unlock and open the under-seat storage.

Fuel tank

The fuel tank capacity is 1.7 gallons.

To open the fuel cap, turn it counter-clockwise and pull it out of the tank’s opening.

To close the fuel cap, insert the fuel cap into the tank’s opening, lining up the cap tabs with the slots in the tank neck and turn it clockwise.

Turn the fuel cap 90° counter clockwise to remove the fuel cap.
Operating your vehicle

**Warning**

* Do not over fill or “top off” 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 location.
* While refueling smoking is strictly forbidden nor should fuel be dispensed 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 present during refueling.

**Caution**

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

Front brake: This is the right lever when you’re sitting on the vehicle. It uses 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 Motorcycles (Stage III, running mode)  
Unit: g/km

<table>
<thead>
<tr>
<th>Emitted pollutants</th>
<th>Two-wheel vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>2.0</td>
</tr>
<tr>
<td>HC</td>
<td>0.8</td>
</tr>
<tr>
<td>NOx</td>
<td>0.15</td>
</tr>
</tbody>
</table>

Emission Standards of Mopeds (Stage III, under the running mode)  
Unit: g/km

<table>
<thead>
<tr>
<th>Emitted pollutants</th>
<th>Two-wheel moped</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>1.0</td>
</tr>
<tr>
<td>HC + NOx</td>
<td>1.2</td>
</tr>
</tbody>
</table>

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 ≤4.0%; and the volume concentration of emitted HC is ≤1000×10^{-6}.  

Vehicle Load
The maximum payload of the vehicle must be strictly observed. Otherwise, the safety and stability of the vehicle will be compromised.

* Belongings in the rear storage box must be secured to prevent shifting during vehicle operation.
* NEVER hang anything on the handle bars during vehicle operation.
* The max pay load of the rear luggage rack must not exceed 11 pounds.
* The maximum payload of vehicle is 330 lbs. This includes the passengers, their gear and luggage.

Tools delivered with the vehicle
Common service and maintenance tools are provided with your vehicle.

- 13x15 Double-ended spanner
- Spark plug socket
- Double-ended screw driver
- 8x10 Double-ended spanner
- Double-ended screw driver holder
Pre-Ride 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, making sure it reaches operating temperature.
2. Check for any fluid leaks.
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 vehicle odometer readings and operating conditions.

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 adjustment, lubricate any necessary parts, check nuts and bolts and tighten if necessary. (See the Service and Maintenance section for more details).

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

Level 3: Service and Maintenance: Odometer reading 3000~3500 miles. Oil change, valve adjustment, lubricate any necessary parts, check nuts and bolts, and tighten 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 THAT YOUR WARRANTY IS NOT VOIDED**
Ensure you have enough fuel for your trip and make sure the gas cap is secured properly.

Check the steering by moving from left to right. It should move easily and smoothly with no play or binding.

Place the vehicle on the main stand and check the oil level. Always make sure the vehicle has enough oil.

Check the throttle to ensure it moves freely. If not the cable may need replacing.
Check for any fluid leaks under the engine.

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

Make sure the cable connections at the battery are clean and tight.
Check and make sure the front brake handle has at least 10mm-20mm (0.394-0.787 inch) of play.

Check the headlight assembly to ensure the lights are working properly.

Check and make sure the rear brake handle has at least 10mm-20mm (0.391-0.787 inch) of play.

Check the taillight assembly to ensure the taillight, brake light and turn signals are working properly.
Manual starting of the vehicle
The manual starting of the vehicle is done in the following steps:

1) Turn the key to the starting position.

2) Hold the front brake in to secure the vehicle from moving and to activate the starter safety switch.

3) Extend the foot bar and push the starting arm down to its limit, and then reset the starting arm in the original position. Repeat this motion until the engine starts.

4) Turn the throttle slightly with your right hand to add an appropriate amount of fuel to start the vehicle.
Electrically Starting the vehicle

Make sure that the side stand is up. We suggest that you support the vehicle on its main stand. The duration of each start attempt should not exceed 5 seconds, and the interval between any two attempts should be more than 10 seconds. If 3 consecutive startup attempts fail, the vehicle should be checked at your nearest Wolf brand dealership.

First, insert the key into the ignition switch, and turn it to the position marked “□”. You can also hold the rear brake lever as well. This will also secure the vehicle and activate a second starter safety switch.

Apply the front brake lever in to secure the vehicle from moving and to activate the starter safety switch.

While holding either or both brake handles, push the electric start button with your right thumb. Roll the accelerator a small amount with your right hand to add an appropriate amount of fuel. The electric starter will activate, roll the engine over and it will start.
Parking of the vehicle

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 center 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 easily stolen.
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:

1. Keep the engine clean, and make sure there is no fluid leakage.
2. Ensure that the automatic clutch shows no slipping or abnormal noise, and the throttle operates smoothly.
3. Ensure that the brakes work well and meet necessary requirements and that the wheels spin freely once brake is 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 connections around the whole vehicle.
6. All mechanical parts should be lubricated.
7. The connections to the battery terminals should be tight and the battery should be secured properly.
8. 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 vehicle is broken-in will directly affect the service life of that vehicle. Within the first 500 miles of a new vehicle the driving speed should not exceed 30 MPH, and you should vary the speed regularly never remaining at one speed for too long.
Precautions for the break-in period of a new vehicle

1. Within the break-in period, replace the oil every 300 miles, with standard 15w-40 or synthetic 5w-40 engine oil and clean the oil filter screen.

2. Regularly check for loose connections, and tighten if found.

3. Regularly check whether the engine, drive train and braking system overheat, and whether there is enough lubricating oil on each lubricated part. If any overheating occurs, the reason should be found and rectified immediately.

4. Regularly check the tightness of the belt, the free travel of the front and rear brakes, throttle grip and the handle bar movement. Adjust them if necessary.

5. Within the break-in period, ride the vehicle only when the engine is 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 break-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.

Contents of Level 1 Service and Maintenance

Level 1 Service and Maintenance should be performed every 500~1000 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. 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 (0.079-0.236 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 off the carbon deposits. Then adjust the electrode gap of the spark plug to 0.025 inches.

7. Remove the battery and charge it.

8. Check and tighten all bolts and nuts of all exposed parts.

9. Check the tightness of all electrical system connections.

10. Adjust the engine valve lash: intake valve to 0.03-0.05mm (0.001-0.002 inch); exhaust valve 0.05-0.07mm (0.002-0.003 inch).

11. Store the vehicle under the best possible conditions.
Contents of Level 2 Service and Maintenance
Level 2 Service and Maintenance should be performed every 2000~4000 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. Disassemble the top end of the engine. Remove any carbon deposits from the internal parts like the cylinder, piston, piston rings and cylinder head. Check for wear and replace if needed. Lubricate and reassemble
3. Check the wear of the clutch friction lining and brake shoes.
4. Clean the carburetor, air filter, fuel tank, fuel filter, etc.
5. Clean the upper and lower ball bearings on 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.

Contents of 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 system is working correctly.
3. Ensure the electric starter is working.
4. Ensure normal operation, of front and rear automatic clutches and the drive system.
5. Check whether there are any cracks, or serious wear on each gear tooth of the rear transmission box.
6. Disassemble the top end of the engine, remove any carbon deposits from the combustion chamber, 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. Ensure the front and rear shocks are in good condition and their mounts are in good condition.
8. Ensure the fuel system clean. Replace the inline filter.
9. Ensure normal operation of instruments and the electric system.
10. 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, re-lube or replace as needed.
Service and Maintenance for the Carburetor

For maximum performance and reliability, it is important the carburetor is 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 all connections and fittings on the carburetor. A poor fit between the intake manifold and carburetor will result in an air leak that will cause an uncontrolled lean condition. The engine will then run hotter which will damage the piston, cylinder, and head.

2. Check the rubber fuel and vacuum lines for signs of weathering. If any cracks or deterioration are found they should be replaced.

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.
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.

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 until the oil level is in half way between the upper and lower oil levels.

- 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 .9L (30 oz) of 15W-40 (5W-40 if synthetic) engine oil through the oil dipstick opening.

- Insert dipstick and withdraw to verify correct oil level.
Service and Maintenance of the Spark Plug

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.

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

It is normal for the spark plug to be light brown. This indicates a proper air fuel mixture.
Service and Maintenance for the Air Filter

When dust clogs the filter element of the air filter, it results in increased flow resistance through the air intake system which leads to a rich gas mixture. That will 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 then remove the cover. Check whether there is dust and dirt on the sponge 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 light oil before reinstallation for them to filter correctly.

Caution

Never 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 adjuster.

### Service and Maintenance for the Front Brake

Most models use a front disc brake, which features high heat dissipation and increases stopping 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 10mm-20mm.
Service and Maintenance for the Front Brake, cont.:

* 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 at your Wolf Brand dealership prior to riding.

* Check for the wear on the front disc rotor. Any signs of warping, discoloration, or irregularities in the surface of the brake rotor can cause vibration, lower braking force, and dangerously increase the stopping distance. Check the caliper for any fluid leaks. If any of these are observed, bring your vehicle to a Wolf Brand Scooter dealership for service.
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 binging or sticking. Rotate the 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 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 support to prop up the vehicle, and adjust the free travel of the rear brake between ¼ - ½ inch.
Inspecting the vehicle lights

* 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 either brake handle pressed.

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.

<table>
<thead>
<tr>
<th>Tire specification/air pressure</th>
<th>Front wheel</th>
<th>Rear wheel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>130/60-13 32-40 PSI</td>
<td>130/60-13 32-40 PSI</td>
</tr>
</tbody>
</table>

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.

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.

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.

<table>
<thead>
<tr>
<th>Minimum limit of tread depth</th>
<th>Front wheel</th>
<th>Rear wheel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.0mm 0.079”</td>
<td>2.0mm 0.079”</td>
</tr>
</tbody>
</table>

**Warning**

* Low tire pressure will increase the rolling resistance of the vehicle, increase fuel consumption, and wear the tire prematurely. In more severe cases it 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 of the Environmental Protection Device

Vehicle drivers must conduct correct and regular service and maintenance for the environmental protection device to ensure best performance of the environmental protection device. With proper and regular service and maintenance, we can promptly eliminate faults, prolong the service life of the environmental protection device, reduce the maintenance costs, and realize the goal of being environmental-friendly and reducing the fuel consumption of the vehicle.

1. Regularly check whether there is any aging, air leakage or damage on the intake negative pressure hose and the intake plastic hose. If any, replace the intake negative pressure hose and the intake plastic hose.

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.

3. Regularly check the air filter. If any dust or dirt exists on the air filter, the air flow will be reduced, thus changing the concentration of the gas mixture, and increasing fuel consumption. Therefore, it must be changed.

Caution

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).
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 tight.
3. If the vehicle is not going to be used for more than 2 weeks, the battery should be disconnected, and placed on a trickle charger to maintain a healthy charge.

When checking the voltage of the battery, a reading of less than 12-13 volts is not normal. You should then charge and load test your battery to ensure that it does not need to be replaced. Most auto parts stores will do this for free.

If your battery reads less than 12 v but passes a load test place it on a 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.

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 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.

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 so, then use the adjustment screw in the middle of the horn to get the correct horn sound. If you do not get a read from the multi-meter on the horn circuit, you should have the vehicle checked by your local Wolf Brand Scooter Dealer.
Long Term Storage for your Vehicle
For vehicles that will need to be parked for more than a month, the following steps should be followed:

* 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 of clean lubricating oil into the cylinder. Use the kick start 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 healthy 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.

* Inflate the tire pressure to 35-40 P.S.I.

* Cover the vehicle, and park it in a well-ventilated, dry, clean, dark place, far away from any hazardous material like flammables or corrosive chemicals.

When taking the vehicle out of storage.

* Clean the vehicle. Replace the engine oil if vehicle has been stored for more than 4 months regardless of mileage.

* Load test the battery. Replace or charge as needed.

* Refill the fuel tank with fresh gas.

* Perform an inspection on the vehicles brakes, lights, tires, and check for any fluid leaks.

* Start the engine and run at idle until it gets to full operating temperature before riding. The exhaust may smoke a bit from the lubricating oil you added to the cylinder when you placed the vehicle in storage. This should go away after the engine idles for a few minutes.
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.

<table>
<thead>
<tr>
<th>Item</th>
<th>Odometer</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel system</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Fuel filter</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Throttle cable</td>
<td>A/C</td>
<td></td>
</tr>
<tr>
<td>Carburetor</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Air filter</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Spark plug gap</td>
<td>A/C</td>
<td></td>
</tr>
<tr>
<td>Valve lash</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Engine oil</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Oil filter screen</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Timing chain</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Carburetor idling</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Drive belt</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Battery</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Brake shoe</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Braking system</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Brake light switch</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Lighting system</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Clutch</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Shock absorber</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Nuts and bolts</td>
<td>G</td>
<td></td>
</tr>
</tbody>
</table>

※※ can only be serviced and maintained by authorized Wolf Brand Scooter service center. When riding in an extremely humid or a very dusty environment, the service and maintenance interval should be shortened appropriately.
## Service and Maintenance Interval Table for Lubricated Parts

<table>
<thead>
<tr>
<th>Name</th>
<th>Model</th>
<th>Odometer reading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>300-500</td>
</tr>
<tr>
<td>Engine oil</td>
<td>SAE 15W-40 (5W-40 if synthetic)</td>
<td>R</td>
</tr>
<tr>
<td>Brake Cables</td>
<td>Multipurpose lithium-based lubricating grease</td>
<td>-</td>
</tr>
<tr>
<td>Brake fluid</td>
<td>DOT3 or DOT4</td>
<td>-</td>
</tr>
<tr>
<td>Lubricating oil for front shock absorber</td>
<td>Lubricating grease for shock absorber</td>
<td>-</td>
</tr>
<tr>
<td>Tachometer gear</td>
<td>Multipurpose lithium-based lubricating grease</td>
<td>-</td>
</tr>
<tr>
<td>Steering gear</td>
<td>Multipurpose lithium-based lubricating grease</td>
<td>-</td>
</tr>
<tr>
<td>Bearings for front and rear wheels</td>
<td>Multipurpose lithium-based lubricating grease</td>
<td>-</td>
</tr>
<tr>
<td>Rear braking swing arm</td>
<td>Multipurpose lithium-based lubricating grease</td>
<td>-</td>
</tr>
</tbody>
</table>

I-Inspection R-Replacement T-Addition
<table>
<thead>
<tr>
<th>Fault system</th>
<th>Fault</th>
<th>Causes</th>
<th>Troubleshooting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel system</td>
<td>You are unable to start the engine.</td>
<td>Fuel not entering the carburetor.</td>
<td>Check the fuel lines.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The fuel is not flowing from the tank.</td>
<td>Clean the tank and replace fuel shut off valve.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The vacuum lines are pinched or leak.</td>
<td>Check vacuum lines and replace if needed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The fuel line is clogged.</td>
<td>Replace fuel lines.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The vacuum line is blocked.</td>
<td>Unblock the vacuum lines.</td>
</tr>
<tr>
<td></td>
<td>The engine is difficult to start or you notice a loss of fuel economy.</td>
<td>The carburetor is blocked.</td>
<td>Clean or replace the carburetor.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The air/fuel mixture is not correct.</td>
<td>Readjust the mixing ratio and concentration of the carburetor.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The carburetor leaks.</td>
<td>Clean the carburetor or replace the carburetor float.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The fuel filter is blocked.</td>
<td>Clean the fuel filter.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The throttle of the carburetor is worn.</td>
<td>Replace the throttle.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The fuel is bad.</td>
<td>Replace the fuel.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The air vent of the fuel tank is blocked.</td>
<td>Remove blockage in air vent of the fuel tank.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low fuel.</td>
<td>Add fuel to the fuel tank.</td>
</tr>
<tr>
<td>Air intake/exhaust</td>
<td>The engine is difficult to start.</td>
<td>The Air filter element is blocked.</td>
<td>Clean the air filter.</td>
</tr>
<tr>
<td>system</td>
<td></td>
<td>The air filter leaks.</td>
<td>Replace the air filter.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The air filter is dirty.</td>
<td>Clean the air filter.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The air filter housing leaks.</td>
<td>Repair or change the air filter housing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Too much carbon build up at the exhaust port.</td>
<td>Clean the carbon build up at the exhaust port.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The exhaust port leaks.</td>
<td>Replace the cylinder head.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The muffler is blocked.</td>
<td>Replace the muffler.</td>
</tr>
</tbody>
</table>
**Common Faults and Trouble Shooting Continued**

<table>
<thead>
<tr>
<th>Fault system</th>
<th>Fault</th>
<th>Causes</th>
<th>Troubleshooting</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA Device</td>
<td>Emitted pollutants exceed applicable standards</td>
<td>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.</td>
<td>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.</td>
</tr>
<tr>
<td>Ignition system</td>
<td>Weak spark or no spark</td>
<td>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. Short-circuit of the ignition coil C.D.I is faulty. The stator is faulty. The connection of the ignition system is loose.</td>
<td>Clean the carbon buildup on the spark plug. Adjust the gap to 0.6mm~0.7mm Replace the spark plug. Replace the ignition coil. Replace C.D.I. Replace the stator. Check each connection.</td>
</tr>
<tr>
<td>Engine</td>
<td>The engine is difficult to start and will not idle.</td>
<td>The cylinder head is leaking. The valves are not adjusted properly. The valves are bent.</td>
<td>Replace the cylinder head. Adjust the valves to .003 inches. Replace the valves.</td>
</tr>
</tbody>
</table>
## Common Faults and Trouble Shooting Continued

<table>
<thead>
<tr>
<th>Fault system</th>
<th>Fault</th>
<th>Causes</th>
<th>Troubleshooting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine</td>
<td>Compression ratio is too high.</td>
<td>There is too much carbon buildup in the combustion chamber and on the top of the piston.</td>
<td>Clean the carbon buildup in the combustion chamber and on the top of the piston.</td>
</tr>
<tr>
<td></td>
<td>Excessive noise coming from engine.</td>
<td>The valves are not adjusted properly.</td>
<td>Re-adjust the valve clearance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The air valve is broken.</td>
<td>Replace the air valve.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The cylinder and piston are worn out.</td>
<td>Replace the damaged internal engine parts.</td>
</tr>
<tr>
<td></td>
<td>The cylinder pressure is too low.</td>
<td>The cylinder, rings, valves, piston could be damaged.</td>
<td>Replace the cylinder, piston, piston rings.</td>
</tr>
<tr>
<td></td>
<td>Excessive smoke from muffler.</td>
<td>The piston ring could be damaged.</td>
<td>Replace the piston rings.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oil leaking past the valves.</td>
<td>Replace the valve seals.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>There is wearing on the piston or cylinder wall.</td>
<td>Replace the piston or cylinder.</td>
</tr>
<tr>
<td></td>
<td>The cylinder head leaks.</td>
<td>The valves need to be re-seated.</td>
<td>Re-seat the valves.</td>
</tr>
<tr>
<td>Front Wheel</td>
<td>The front wheel vibrates.</td>
<td>The front shock absorber is damaged.</td>
<td>Replace the front shock absorber.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The front wheel is damaged.</td>
<td>Replace the front wheel.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The triple tree is bent.</td>
<td>Replace the triple tree.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The front wheel is improperly mounted.</td>
<td>Replace the front tire.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The front wheel bearings are worn out or damaged.</td>
<td>Replace the front wheel bearings.</td>
</tr>
<tr>
<td></td>
<td>The front wheel has play in it.</td>
<td>The front wheel is damaged.</td>
<td>Replace the front wheel.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The front wheel nut is loose.</td>
<td>Tighten the front wheel nut to specs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The tire pressure is too low.</td>
<td>Increase the tire pressure.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The front wheel bolt is loose.</td>
<td>Tighten the front wheel nut to specs.</td>
</tr>
</tbody>
</table>
### Common Faults and Trouble Shooting Continued

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