Periodic Maintenance Chart

In addition to the following items, always perform the Daily Safety Checks listed in the HOW TO RIDE chapter.

- Clean, adjust, lubricate, replace parts as necessary.
- Service to be performed by an authorized Kawasaki dealer.

(A): KLF220 (B): KLF300B (C): KLF300C (D): KLF400

<table>
<thead>
<tr>
<th></th>
<th>First Service</th>
<th>Regular Service</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>After 10 hrs. of use</td>
<td>Every 10 days of use</td>
</tr>
<tr>
<td><strong>ENGINE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air cleaner--service*</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Throttle lever play--check (D)</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Clutch adjustment*</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Valve clearance--check</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Fuel system cleanliness--check*</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Engine oil--change*</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Oil filter--replace*</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Spark plug--clean and gap</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Spark arrester--clean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiator--clean* (D)</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Radiator hoses and connections--check* (D)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coolant--change (D)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel hose--replace (D)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Change as necessary.
<table>
<thead>
<tr>
<th>CHASSIS</th>
<th>First Service</th>
<th>Regular Service</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>After 10 hrs. of use</td>
<td>Every 10 days of use</td>
</tr>
<tr>
<td>Joint boots--check* (C)(D)</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Rear brake adjustment--check* (B)(C)(D)</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Brake wear--check* (A)</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Rear brake lining wear--check* (B)(C)(D)</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Front brake pad wear--check* (B)(C)(D)</td>
<td>S</td>
<td>●</td>
</tr>
<tr>
<td>Brake light switch--check*</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Brake fluid level--check (B)(C)(D)</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Brake fluid--change (B)(C)(D)</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Cable adjustments*</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Battery--check</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Steering play--check</td>
<td>S</td>
<td>●</td>
</tr>
<tr>
<td>General lubrication*</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Bolts and nuts--tightly</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Final gear case oil--change (A)(B)</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Front and rear final gear case oil--change (C)(D)</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Master cylinder piston assembly and dust seal--replace (B)(C)(D)</td>
<td></td>
<td>2 years (S)</td>
</tr>
<tr>
<td>Caliper piston seal and dust seal--replace (B)(C)(D)</td>
<td></td>
<td>2 years (S)</td>
</tr>
<tr>
<td>Brake hose--replace (B)(C)(D)</td>
<td></td>
<td>2 years (S)</td>
</tr>
</tbody>
</table>

*Service more frequently when operated in mud, dust or other harsh riding conditions.
Engine Oil

In order for the engine, transmission, and clutch to function properly, maintain the engine oil at the proper level, and change the oil and replace the oil filter in accordance with the Periodic Maintenance Chart. Not only do dirt and metal particles collect in the oil, but the oil itself loses its lubricative quality if used too long.

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HAZARD</strong></td>
</tr>
<tr>
<td>Engine or transmission seizure.</td>
</tr>
<tr>
<td><strong>WHAT CAN HAPPEN</strong></td>
</tr>
<tr>
<td>Can lock the rear wheels causing an accident and injury.</td>
</tr>
<tr>
<td><strong>HOW TO AVOID THE HAZARD</strong></td>
</tr>
<tr>
<td>Do not operate this vehicle with insufficient, deteriorated, or contaminated engine oil.</td>
</tr>
</tbody>
</table>

Oil Level Inspection

- If the oil has just been changed, start the engine and run it for several minutes at idle speed. This fills the oil filter with oil. Stop the engine, then wait several minutes until the oil settles.

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Racing the engine before the oil reaches every part can cause engine seizure.</td>
</tr>
<tr>
<td>Operation with insufficient, deteriorated, or contaminated engine oil will cause accelerated engine wear.</td>
</tr>
</tbody>
</table>

- If the vehicle has just been used, wait several minutes for all the oil to drain down.
- Check the engine oil level through the oil level gauge in the lower right side of the engine. With the vehicle level front-to-rear and side-to-side, the oil level should come up between the upper and lower level lines next to the gauge.

A. Oil Filler Cap  
B. Oil Level Gauge  
C. Upper Level Line  
D. Lower Level Line
- If the oil level is too high, remove the excess oil through the oil filler opening using a syringe or some other suitable device.
- If the oil level is too low, add the oil to reach the correct level. Use the same type and brand of oil that is already in the engine.

**WARNING**

HAZARD
Engine or transmission seizure.

WHAT CAN HAPPEN
Can lock the rear wheels causing an accident and injury.

HOW TO AVOID THE HAZARD
Check engine oil level before operating vehicle, and add oil if it is low.

**CAUTION**

If the engine is run without oil, it will be severely damaged.

**WARNING**

HAZARD
Improper disposal of used motor oil.

WHAT CAN HAPPEN
Used motor oil is a toxic substance, which can pollute the environment.

HOW TO AVOID THE HAZARD
Contact your local authorities for approved disposal methods and follow those methods at all times.

Oil and/or Oil Filter Change
- Warm up the engine thoroughly, and then stop it.
- Place an oil pan beneath the engine.
- Remove the engine oil drain plug.

A. Drain Plug

Let the oil completely drain with the vehicle on level ground.
● Install the oil filter cover and tighten its bolts.
● After the oil has completely drained out, install the engine oil drain plug with its gasket. Proper torque for it is shown in the table.

**NOTE**

○ Replace the damaged gasket with a new one.

Tightening Torque

| Engine Oil Drain Plug: 29 N·m (3.0 kg·m, 22 ft·lb) |

● Fill the engine up to the upper level line with a good quality engine oil specified in the table.

**Engine Oil**

<table>
<thead>
<tr>
<th>Type: API SF or SG</th>
<th>API SH or SJ with JASO MA</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAE 5W-30, 10W-40, 10W-50, 20W-40</td>
<td>or 20W-50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capacity:</th>
<th>KLF220: 2.0 L (2.1 US qt)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[when filter is not removed]</td>
</tr>
<tr>
<td></td>
<td>2.1 L (2.2 US qt)</td>
</tr>
<tr>
<td></td>
<td>[when filter is removed]</td>
</tr>
</tbody>
</table>

| KLF300B: | 1.7 L (1.8 US qt) |
| KLF300C: | 2.4 L (2.5 US qt) |

● Check the oil level.

**KLF400:**

● If the oil filter is to be replaced, remove the oil filter cartridge and replace it with a new one.

![A. Packing](image)

A. Packing

● Apply a thin film of oil to the packing and tighten the cartridge to the specified torque.
A. Packing

- Install the engine oil drain plug with its gasket. Tighten it to the specified torque.

**NOTE**

- Replace any damaged gaskets with new ones.

**Tightening Torque**

<table>
<thead>
<tr>
<th>Component</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Oil Drain Plug</td>
<td>29 N-m (3.0 kg-m, 22 ft-lb)</td>
</tr>
<tr>
<td>Cartridge</td>
<td>9.8 N-m (1.0 kg-m, 7.0 ft-lb)</td>
</tr>
</tbody>
</table>

- Fill the engine up to the upper level line with a good quality engine oil specified in the table.

**Engine Oil**

<table>
<thead>
<tr>
<th>Type</th>
<th>Capacity</th>
<th>[when filter is not removed]</th>
</tr>
</thead>
<tbody>
<tr>
<td>API SF or SG</td>
<td>3.0 L (3.2 US qt)</td>
<td>3.2 L (3.4 US qt)</td>
</tr>
<tr>
<td>API SH or SJ with JASO MA</td>
<td>[when filter is removed]</td>
<td>3.7 L (3.9 US qt)</td>
</tr>
<tr>
<td>SAE 5W-30, 10W-40, 10W-50, 20W-40</td>
<td>[when engine is completely dry]</td>
<td></td>
</tr>
<tr>
<td>or 20W-50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Check the oil level.
- Start the engine and check for oil leakage.
Cooling System – on KLF400

Radiator and Cooling Fan

Check and clean the grille, net and radiator fins for obstruction by insects or mud in accordance with the Periodic Maintenance Chart.

• Loosen the left and right wing bolts, pull each washer outward, and remove the grille, and then the net.

• Clean the grille, net, and radiator fins of any obstructions with a stream of low-pressure water.

CAUTION

Using high-pressure water, as from a car wash facility, could damage the radiator fins and impair the radiator’s effectiveness. Do not obstruct or deflect airflow through the radiator by installing unauthorized accessories in front of the radiator or behind the cooling fan. Interference with the radiator airflow can lead to overheating and consequent engine damage.
Coolant

Coolant absorbs excessive heat from the engine and transfers it to the air at the radiator. If the coolant level becomes low, the engine overheats and may suffer severe damage. Check the coolant level each day before riding the vehicle, and replenish coolant if the level is low. Change the coolant in accordance with the Periodic Maintenance Chart.

Coolant Level Inspection

- Park the vehicle on level ground.
- Check the coolant level through the slit in the front cover right side behind the front rack. The coolant level should be between the upper and lower level lines on the reserve tank.

NOTE

- Check the level when the engine is cold (room or atmospheric temperature).

A. Front Cover  C. Lower Level Line
B. Upper Level Line

- If the amount of coolant is insufficient, unscrew the reserve tank cover and filler cap, and then add coolant through the filler opening to the upper level line.
Install the cap and cover.

Recommended Coolant Solution

Coolant Mixture Ratio:
Water 50% : Antifreeze 50% (1 : 1)

Recommended Antifreeze:
Permanent type antifreeze (ethylene glycol plus corrosion and rust inhibitor chemicals for aluminum engines and radiators)

NOTE

- In an emergency you can add water alone to the coolant reserve tank, however it must be returned to the correct mixture ratio by the addition of antifreeze concentrate as soon as possible.
- A permanent type of antifreeze is installed in the cooling system when shipped. It is colored green and contains ethylene glycol. It is mixed at 50% and has the freezing point of \(-35^\circ\text{C}\) \((-31^\circ\text{F})\).

CAUTION

If coolant must be added often, or the reserve tank completely runs dry, there is probably leakage in the system. Have the cooling system inspected by your authorized Kawasaki dealer.
Coolant Change

Have the coolant changed by an authorized Kawasaki dealer.

Final Gear Case Oil – on KLF220, 300B

In order for the pinion and ring gears to function properly, check the oil level and change the oil in accordance with the Periodic Maintenance Chart.

⚠️ WARNING ⚠️

HAZARD
Operating this vehicle with insufficient, deteriorated, or contaminated gear case oil.

WHAT CAN HAPPEN
Seizure of ring and pinion gears in final gear case can lock the rear wheels causing an accident and injury.

HOW TO AVOID THE HAZARD
Do not operate this vehicle with insufficient, deteriorated, or contaminated gear case oil.

⚠️ CAUTION ⚠️

Vehicle operation with insufficient, deteriorated, or contaminated oil causes accelerated wear of the pinion and ring gears.
Air Cleaner

A clogged air cleaner restricts the engine's air intake, increasing fuel consumption, reducing engine power, and causing spark plug fouling.

⚠️ WARNING

HAZARD
A clogged air cleaner.

WHAT CAN HAPPEN
May allow dirt and dust to enter the carburetor and stick the throttle open. This could cause an accident.

HOW TO AVOID THE HAZARD
Clean the air cleaner regularly and according to the instructions in this section.

⚠️ CAUTION

A clogged air cleaner may allow dirt and dust to enter the engine causing excessive wear and possibly engine damage.

The air cleaner element must be cleaned in accordance with the Periodic Maintenance Chart. In dusty areas, the element should be cleaned more frequently than the recommended interval. After riding through rain or on muddy roads, the element should be cleaned immediately.

Element Cleaning

● Remove the seat.
● For KLF220, 300B/C, pull up the snaps and remove the air cleaner cover.

A. Air Cleaner Cover
B. Snaps

● For KLF400, unscrew the wing bolts and remove the air cleaner housing cover.
A. Air Cleaner Housing Cover  
B. Wing Bolts

- Loosen the clamp screw, remove the element mounting screw, then pulling the air cleaner element to the rear take it up out of the air cleaner housing.

A. Clamp Screw  
B. Mounting Screw  
C. Element

Check inside the inlet tract and carburetor for dirt. If dirt is present, clean the intake tract and carburetor thoroughly. You may also need to replace the air filter and seal the airbox and inlet tract.

- Push a clean, lint-free towel into the inlet tract to keep dirt or other foreign material from entering.
- Wipe out the inside of the airbox with a clean damp towel.
WARNING

HAZARD
Dirt or dust allowed into the carburetor.

WHAT CAN HAPPEN
Can cause the throttle to stick open. This could cause an accident.

HOW TO AVOID THE HAZARD
Be sure to cover the air cleaner opening to the carburetor after removing the element.
Clean the air cleaner case as described in this section.

CAUTION

If dirt gets through into the engine, excessive engine wear and possibly engine damage will occur.

For KLF220, 300B/C remove the element stopper from the rear end of the element body by removing the screw and pull the urethane foam element off the body, then off the inner metal net.
● For KLF400 remove the urethane foam element from the paper element.

A. Foam Element  B. Paper Element

● Clean the foam element in a bath of high flash-point solvent using a soft bristle brush.

⚠️ WARNING

HAZARD
Cleaning the air cleaner element with gasoline or low flash-point solvent.

WHAT CAN HAPPEN
Gasoline or low flash-point solvents are extremely flammable and can be explosive under certain conditions. A fire or explosion can cause severe injury or death.

HOW TO AVOID THE HAZARD
Use a high flash-point solvent to clean the air cleaner element. Never use gasoline or low flash-point solvents.
Clean the element in a well-ventilated area free from any source of flame or sparks: this includes any appliance with a pilot light.

● Squeeze it dry in a clean towel. Do not wring the element or blow it dry; the element can be damaged.
● Inspect the element for damage. If it is torn, punctured, or hardened, replace it.

NOTE
○ Replace the foam element after cleaning it five times or if it is damaged.
KLF220, 300B/C:
- After cleaning, saturate the element with a high-quality foam air filter oil, squeeze out the excess, then wrap it in a clean rag and squeeze it as dry as possible. Be careful not to tear the element.
- Install the element on the inner metal net.
- Coat the lips of the element with a thick layer of all purpose grease to assure a complete seal against the element body and stopper.
- Install the element on the body, then install the element stopper.
- Apply grease to all connections and screw holes in the airbox and intake tract.
- Remove the towel from the inlet tract.
- Install the element in the airbox. Tighten the mounting screw and clamp screw securely.
- Smear grease around the clamp and particularly in any gaps between the element body and the inlet tract.
- Install the air cleaner housing cover and seat.

Dust and/or Water Inspection
KLF220, 300B/C:
- Squeeze open the drain tube(s) on the bottom of the air cleaner housing to expel dust and/or water accumulated inside.

KLF220:
- Clean the paper element by tapping it lightly to loosen dust.
- Blow away the remaining dust by applying compressed air from the inside to the outside (from the clean side to the dirty side).
- Install the foam element on the paper element.
- Apply grease to all connections and screw holes in the airbox and intake tract.
- Remove the towel from the inlet tract.
- Install the element in the airbox. Tighten the mounting screw and clamp screw securely.
KLF300B/C:

A. Drain Tube

KLF400:

Remove the transparent drain tube on the bottom of the air cleaner housing to expel dust and/or water accumulated inside.

KLF400:

A. Drain Tube
NOTE

- Since the above two free play adjustments (pedal and lever) affect each other, make them at the same time.
- After adjustments, check for brake drag (there should be none) and effectiveness.

Wheels

Rims:

The rims are a drop-center, tubeless tyre design. Take care not to damage the sealing surfaces of the tyre or rim when removing or installing tyres. Note that the rims, like automotive rims, are not symmetrical and should be installed in one direction only. All wheels must be installed so that the valve stems are on the outside of the vehicle.

Tyres:

The front and rear tyres are knobby, tubeless tyres. When replacing tyres, check the valve stems and cores for damage. Take care not to damage the tyre sealing surfaces of the rims.

<table>
<thead>
<tr>
<th>Tyre Size</th>
<th>Front</th>
<th>Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>KLF220</td>
<td>AT21 x 8-9</td>
<td>AT22 x 10-10</td>
</tr>
<tr>
<td>KLF300B</td>
<td>AT22 x 9-10</td>
<td>AT24 x 11-10</td>
</tr>
<tr>
<td>KLF300C, 400</td>
<td>AT24 x 8-11</td>
<td>AT24 x 10-11</td>
</tr>
</tbody>
</table>
### Standard Tyre (Tubeless)

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>KLF220</td>
<td>DUNLOP KT856</td>
<td>DUNLOP KT857</td>
</tr>
<tr>
<td>KLF300B</td>
<td>DUNLOP KT761</td>
<td>DUNLOP KT765</td>
</tr>
<tr>
<td>KLF300C</td>
<td>DUNLOP KT962 or GOODYEAR TRACKER MP</td>
<td>DUNLOP KT962 or GOODYEAR TRACKER MP</td>
</tr>
<tr>
<td>KLF400</td>
<td>DUNLOP KT962 or GOODYEAR TRACKER MP</td>
<td>DUNLOP KT962A or GOODYEAR TRACKER MP</td>
</tr>
</tbody>
</table>

### Payload and Tyre Pressure

Failure to maintain proper inflation pressures or observe payload limits for your tyres may adversely affect handling and performance of your vehicle and can result in loss of control. The maximum recommended load carrying capacity of each vehicle is shown in the table.

<table>
<thead>
<tr>
<th></th>
<th>Maximum Load Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>KLF220</td>
<td>130 kg (285 lb)</td>
</tr>
<tr>
<td>KLF300B</td>
<td>182 kg (400 lb)</td>
</tr>
<tr>
<td>KLF300C</td>
<td>195 kg (430 lb)</td>
</tr>
<tr>
<td>KLF400</td>
<td>205 kg (452 lb)</td>
</tr>
</tbody>
</table>

Use the tyre pressure gauge in the tool kit to accurately set tyre pressure.

---

**NOTE**

- Tyres are an important part of the suspension on your ATV. Tyre construction characteristics and tyre inflation pressure can greatly influence vehicle handling. Kawasaki recommends that you always replace tyres with standard replacement tyres as shown above. It is also very important to have tyres of the same type and size, and at the same inflation pressure, on one axle.
- Installation of non-standard tyres, or use of different tyres on one axle, can change the handling of the vehicle and possibly result in a loss of control.
- Installation of tubeless tyres on rims requires compressed air and is normally recommended as a dealer service operation. However, a tube can be inserted into the tyre by the operator as an emergency repair.

---

⚠️ **WARNING**

**HAZARD**

Unequal tyre pressure.

**WHAT CAN HAPPEN**

Can cause difficult and unpredictable steering resulting in an accident.

**HOW TO AVOID THE HAZARD**

Inflate both front tyres and both rear tyres to the same pressure respectively.
**WARNING**

**HAZARD**
Operating this ATV with improper tyres, or with improper tyre pressure.

**WHAT CAN HAPPEN**
Use of improper tyres on this ATV, or operation of this ATV with improper tyre pressure, may cause loss of control, increasing your risk of an accident.

**HOW TO AVOID THE HAZARD**
Always use the size and type tyres specified in the Owner’s Manual for this vehicle.
Always maintain proper tyre pressure as described in this Owner’s Manual.

---

### Tyre Air Pressure (when cold)

#### KLF220/300B:

<table>
<thead>
<tr>
<th>Normal Use</th>
<th>Front and Rear</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>21 kPa</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.21 kg/cm², 3.0 psi)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maximum (to seat beads)</th>
<th>Front and Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>KLF220: 250 kPa</td>
<td></td>
</tr>
<tr>
<td>(2.5 kg/cm², 36 psi)</td>
<td></td>
</tr>
<tr>
<td>KLF300B: 140 kPa</td>
<td></td>
</tr>
<tr>
<td>(1.4 kg/cm², 20 psi)</td>
<td></td>
</tr>
</tbody>
</table>

#### KLF300C/400:

<table>
<thead>
<tr>
<th>Normal Use</th>
<th>Front</th>
<th>35 kPa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(0.35 kg/cm², 5 psi)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Rear</th>
<th>KLF300C: 28 kPa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(0.28 kg/cm², 4 psi)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Rear</th>
<th>KLF400: 42 kPa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(0.42 kg/cm², 6 psi)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maximum (to seat beads)</th>
<th>Front and Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUNLOP: 250 kPa</td>
<td></td>
</tr>
<tr>
<td>(2.5 kg/cm², 36 psi)</td>
<td></td>
</tr>
<tr>
<td>GOODYEAR: 225 kPa</td>
<td></td>
</tr>
<tr>
<td>(2.25 kg/cm², 32 psi)</td>
<td></td>
</tr>
</tbody>
</table>
Battery
The battery is located under the seat.

DANGER EXPLOSIVE GASES
Cigarettes, flames or sparks could cause battery to explode. Always shield eyes and face from battery. Do not charge without proper instruction and training. Connect cables to the proper terminals securely. Check vent tube to avoid any crimping or obstruction to the tube.

KEEP FILLING PLUGS TIGHT AND LEVEL

POISON CAUSES SEVERE BURNS
Contains sulfuric acid. Avoid contact with skin, eyes, or clothing. In event of accident flush with water and call a physician immediately.
KEEP OUT OF REACH OF CHILDREN

Battery Electrolyte Level Inspection
The battery electrolyte level must be kept between the upper and lower level lines. Check the electrolyte level in each cell in accordance with the Periodic Maintenance Chart.
- Remove the battery from the vehicle (See Battery Removal).
- Check that the electrolyte level in each cell is between the upper and lower level lines.

![Battery Image]

- If the electrolyte level is low in any cell, fill with distilled water as follows.
- Remove the battery filler caps and fill with distilled water until the electrolyte level in each cell reaches the upper level line.

**CAUTION**

Add only distilled water to the battery. Ordinary tap water is not a substitute for distilled water and will shorten the life of the battery.

**Battery Charging**

- Remove the battery from the vehicle (See Battery Removal).

**CAUTION**

Always remove the battery from the vehicle for charging. If the battery is charged while still installed, battery electrolyte may spill and corrode the frame or other parts of the vehicle.
● Before charging, check the electrolyte level in each cell. If the electrolyte level is low in any cell, fill to above the lower level line but not up to the upper level line since the level rises during charging.
● Remove the caps from all the cells, and connect the battery charger leads to the battery terminals (red to +, black to −).

![Battery Charger Diagram]

A. Battery Charger  
B. Filler Caps  
C. (−) Terminal  
D. (+) Terminal

⚠️ WARNING

**HAZARD**  
Batteries produce hydrogen gas.

**WHAT CAN HAPPEN**  
Which can cause an explosion.

**HOW TO AVOID THE HAZARD**  
Charge the battery in a well ventilated area. Keep sparks, flame, and cigarettes away from the battery during charging. When using a battery charger, connect the battery to the charger before turning on the charger. This procedure prevents sparks at the battery terminals which could ignite any battery gases.

● Charge the battery at a rate that is 1/10th of the battery capacity. For example, the charging rate for a 10 Ah battery would be 1.0 ampere.
CAUTION

Do not use a high rate battery charger, as is typically employed at automotive service stations, unless the charging rate can be reduced to the level required for this vehicle's battery. Charging the battery at a rate higher than specified may ruin the battery. Charging at a high rate causes excess heat which can warp the plates and cause internal shorting. Higher-than-normal charging rates also cause the plates to shed active material. Deposits will accumulate, and can cause internal shorting. If the temperature of the electrolyte rises above 45°C (115°F) during charging, reduce the charging rate to lower the temperature, and increase charging time proportionately.

After charging, check the electrolyte level in each cell. If the level has fallen, add distilled water to bring it back up to the upper level line.

Install the caps on the cells.

Install the battery (See Battery Installation).

Battery Removal

- Remove the seat.
- Except KLF220, remove the fuse case from its holder.
- Unscrew the battery holder.

KLF220:

A. Holder
B. (+) Terminal
C. (−) Terminal
KLF300B/C:

- A. Screw
- B. Holder
- C. (+) Terminal
- D. (-) Terminal

KLF400:

- A. Bolts
- B. Holder
- C. (+) Terminal
- D. (-) Terminal

- Disconnect the leads from the battery, first from the (-) terminal and then the (+) terminal.
- Lift the battery out of the case.
- Clean the battery using a solution of baking soda and water. Be sure that the lead connections are clean.
Battery Installation

- Check that the rubber dampers on the battery holder and the battery case are properly in place.
- Put the battery in place, and route the battery vent hose as shown on the caution label.
- Connect the capped lead to the (+) terminal, and then connect the black lead to the (−) terminal.
- Put a light coat of grease on the terminals to prevent corrosion.
- Cover the (−) terminal with its protective cap.
- Reinstall the parts removed.

CAUTION
Keep the battery vent hose outlet away from the frame and drive system components. Battery electrolyte will corrode and weaken them. Do not let the vent hose become folded, pinched, or melted by the exhaust system. An unvented battery will not keep a charge and it may crack from built-up gas pressure.

Fuse

KLF220:
The fuse is located on the starter relay under the seat, and the spare fuse is provided under the starter relay.

KLF300B/C, 400:
The fuse is fixed on the battery holder under the seat, and the spare fuse is next to the fuse.
Fuel System

Accumulation of moisture or sediment in the fuel system will restrict the flow of fuel and cause carburetor malfunction. The system should be checked in accordance with the Periodic Maintenance Chart.

**WARNING**

**HAZARD**
Draining the fuel system without following proper precautions.

**WHAT CAN HAPPEN**
Gasoline is extremely flammable and can be explosive under certain conditions. A fire or explosion can cause severe injury or death.

**HOW TO AVOID THE HAZARD**
When working on the fuel system, do not smoke. Turn the ignition key to "OFF". Make sure the area is well ventilated and free from any source of flame or sparks; this includes any appliance with a pilot light. If gasoline is spilled, wipe it up immediately.
**Inspection**

- Turn the fuel tap lever to the **ON** position.
- Run the lower end of the carburetor drain hose into a suitable container.
- Turn out the drain screw a few turns to drain the carburetor, and check to see if water or dirt has accumulated in the carburetor.

**Fuel Tank Vent**

The fuel tank vent hose must be routed as shown.

The engine may stall or lose power if the fuel tank vent is plugged or if the vent hose is pinched. Inspect the vent hose before riding and whenever the engine seems to lose power. If the fuel tank is full but the engine feels as if it is running out of fuel, check the vent and vent hose.

**KLF220:**

**NOTE**

- If any water or dirt appears during the above operation, have the fuel system checked by an authorized Kawasaki dealer.
A. Fuel Tank Vent Hose

A. Fuel Tank Vent Hose
Headlight Beam
Adjustment
KLF220, 300C:
● Turn the adjusting screw on each headlight rim in or out to adjust the headlight vertically.

KLF300B, 400:
● Move each headlight up or down to adjust the headlight vertically.

A. Adjusting Screws
A. Headlights
Cleaning
For the prolonged life of your vehicle, wash it down immediately after it has been splashed with seawater or exposed to the sea breeze, or operated on rainy days, rough terrain, or in dusty areas.

Preparations for Washing
Before washing, these precautions must be taken to keep water off the following parts.
- Muffler rear opening – cover with a plastic bag secured with a rubber band.
- Brake lever(s), switch case, throttle case – cover with plastic bags.
- Ignition switch – cover the keyhole with tape.
- Air cleaner intake – close opening with tape, or stuff in rags.

Where to be Careful
Avoid spraying water with any great force near the following places.
- Disc brake master cylinder and caliper.
- Front (on KLF220 only) and rear brake(s) – if water gets into the brake drums, they will not work until they have dried out.
- Under the fuel tank – if water gets into the ignition coil or into the spark plug cap, the spark will jump through the water and be grounded out. When this happens the vehicle will not start and the affected parts must be wiped dry.

NOTE
- Coin operated, high pressure spray washers are not recommended. The water may be forced into bearings and other components causing eventual failure from rust and corrosion. Some of the soaps which are highly alkaline leave a residue or cause spotting.
After Washing

- Remove all plastic bags from the muffler and the handlebars, take the tape off the ignition switch, and open the air cleaner intake.
- Lubricate the points listed in the General Lubrication section.
- Test the brakes before operation.
- Start the engine and run it for 5 minutes.

KLF300B/C, 400:

△ WARNING

HAZARD
Wax, oil, or grease on brake discs.

WHAT CAN HAPPEN
Can cause loss of braking and an accident.

HOW TO AVOID THE HAZARD
Clean the brake discs with an oilless solvent such as trichloroethylene or acetone. Observe the solvent manufacturer's warnings.