

The background is a solid green color. It features several white, stylized geometric shapes that resemble a staircase or a series of parallel lines, arranged in two main sections: one in the upper right and one in the lower left, both pointing towards the center.

**Motorcycle
Owner's Manual**

**KLX110
KLX110L**

Quick Reference Guide

This Quick Reference Guide will assist you in finding the information you're looking for.

GENERAL INFORMATION

MAINTENANCE AND ADJUSTMENT

TROUBLESHOOTING GUIDE

STORAGE

A Table of Contents is included after the Foreword.

IMPORTANT INFORMATION

- This vehicle is designed for the operator only, no passengers.
- This vehicle is an off-road motorcycle only and was not manufactured for use on public streets, roads or highways.
- Respect the environment and the rights of other people.
- Read owner's manual.

Whenever you see the symbols shown below, heed their instructions! Always follow safe operating and maintenance practices.

 **DANGER**

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING**

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

NOTICE

NOTICE is used to address practices not related to personal injury.

NOTE

○ *NOTE* indicates information that may help or guide you in the operation or service of the vehicle.

IMPORTANT

Off-road motorcycling is a wonderful sport, and we hope you will enjoy it to the fullest. However, if improperly conducted, this sport has the potential to cause environmental problems as well as conflicts with other people.

Responsible use of your off-road motorcycle will ensure that these problems and conflicts do not occur. **TO PROTECT THE FUTURE OF YOUR SPORT, MAKE SURE YOU USE YOUR MOTORCYCLE LEGALLY, SHOW CONCERN FOR THE ENVIRONMENT, AND RESPECT THE RIGHTS OF OTHER PEOPLE.**

WARNING

- **THIS VEHICLE IS AN OFF-ROAD VEHICLE ONLY AND WAS NOT MANUFACTURED FOR USE ON PUBLIC STREETS, ROADS, OR HIGHWAYS.**
- **USE YOUR MOTORCYCLE LEGALLY.**
- **RESPECT THE ENVIRONMENT AND THE RIGHTS OF OTHER PEOPLE.**

IMPORTANT NOTE TO PARENTS ABOUT SAFE RIDING

Your youngster's safety will depend on your commitment to always provide a safe riding environment and a properly maintained vehicle. As with any moving vehicle there are possible safety risks; be sure to heed these precautions.

1. Always equip your youngster with suitable protective gear and riding apparel. Be sure he or she always wears a helmet, over-the-ankle footwear or sturdy boots, eye protection, gloves, long pants, and a long-sleeved shirt while riding.
2. Never allow your youngster to carry a passenger. This motorcycle is designed for an OPERATOR ONLY.
3. This motorcycle is designed for off-road riding and should never be operated on public roads or paved surfaces.
4. This motorcycle was not designed for hard riding such as motocross.
5. Always obey local off-road riding laws and regulations. Obtain permission to ride on private property.
6. You, the parent (and most likely "riding instructor/mechanic" as well), must be familiar with motorcycle controls and maintenance requirements plus riding techniques. Read and understand the owner's manual provided with the motorcycle. Review all instructions and warnings with your youngster.
7. You must determine your youngster's readiness to ride this off-road motorcycle. Your youngster should already be familiar with motorcycle controls (location and function) and basic riding techniques. Your youngster should also be physically large enough, and strong enough to be able to straddle the motorcycle and hold it up, plus be able to pick it up if it is on its side.
8. Your youngster's safety depends in part on the good mechanical condition of the motorcycle. Be sure to follow the maintenance and adjustment requirements contained in the Periodic Maintenance Chart, Daily Pre-ride Inspection, and After-Race Check Points. Be sure your youngster understands the importance of checking all items thoroughly before riding the motorcycle. Also, familiarity with the motorcycle is important should a problem occur far from help.
9. Do not allow your youngster to ride unsupervised. He or she should always ride in the company of an experienced adult.

10. Encourage your youngster not to ride beyond his or her skill level or faster than conditions safely allow. Have them practice advanced riding maneuvers under controlled conditions.
11. Tell someone where you and your youngster are planning to ride and when you intend to return. Discuss the ride with your youngster before you leave so he or she will know in advance what riding techniques may be necessary to negotiate the terrain safely. If you are not familiar with the area, lead the way and reduce your speed.

NOTICE

This motorcycle is designed for a rider weighting less than 70 kg (154 lb). Exceeding this limit could damage the motorcycle.

 WARNING

Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

FOREWORD

We wish to thank you for choosing this Kawasaki motorcycle. It is the end product of Kawasaki's advanced engineering, exhaustive testing, and continuous striving for superior reliability, and performance. By giving your motorcycle the proper care and maintenance outlined in this manual, you will be helping to ensure it a long, trouble-free life.

Before starting to ride your motorcycle, please read this manual thoroughly in order to know your motorcycle's capabilities, its limitations, and above all, how to operate it safely.

Due to improvements in design and performance made during production, in some cases there may be minor discrepancies between the actual vehicle and the illustrations and text in this manual.

KAWASAKI HEAVY INDUSTRIES, LTD.
Motorcycle & Engine Company

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Mar. 15, 2013. (1)

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SPECIFICATIONS

DIMENSIONS

| | |
|--------------------|---------------------|
| Overall Length | 1 560 mm (61.4 in.) |
| Overall Width | 650 mm (25.6 in.) |
| Overall Height: | |
| KLX110C | 955 mm (37.6 in.) |
| KLX110D | 990 mm (39.0 in.) |
| Wheelbase | 1 075 mm (42.3 in.) |
| Road Clearance: | |
| KLX110C | 215 mm (8.5 in.) |
| KLX110D | 265 mm (10.4 in.) |
| Curb Mass | 76 kg (168 lb) |
| Fuel Tank Capacity | 3.6 L (1.0 US gal) |

ENGINE

| | |
|-------------------|---|
| Type | 4-stroke, SOHC, single-cylinder, air-cooled |
| Bore × Stroke | 53.0 × 50.6 mm (2.1 × 2.0 in.) |
| Displacement | 112 cm ³ (6.8 cu in.) |
| Compression Ratio | 9.5:1 |
| Fuel System | Carburetor KEIHIN PB18 |
| Starting System | Electric starter and kick starter |
| Ignition System | SHINDENGEN CDI |
| Ignition Timing | 10° BTDC @1 300 r/min (rpm) ~ 31° BTDC @4 000 r/min (rpm) |

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Lubrication System

Forced lubrication (wet sump)

Spark Plug

NGK CR6HSA

TRANSMISSION

Transmission Type

4-speed, constant mesh, return shift

Clutch Type:

KLX110C

Centrifugal and wet, multi disc

KLX110D

Wet, multi disc

Driving System

Chain drive

Gear Ratio:

1st

3.000 (36/12)

2nd

1.938 (31/16)

3rd

1.350 (27/20)

4th

1.087 (25/23)

Primary Reduction Ratio

3.409 (75/22)

Final Reduction Ratio

2.923 (38/13)

Overall Drive Ratio

10.832 @Top gear

Engine Oil:

Type

API SG, SH, SJ, SL, SM with JASO MA, MA1 or MA2

Viscosity

SAE 10W-40

Capacity

1.1 L (1.2 US qt)

FRAME

Type

Backbone

Steering Angle

45° to either side

Caster:

KLX110C 24.8°

KLX110D 24.2°

Trail:

KLX110C 50 mm (2.0 in.)

KLX110D 47 mm (1.9 in.)

Tire Size/Type:

Front 2.50-14 4P.R./IRC GS-45F

Rear 3.00-12 4P.R./IRC GS-45F

Rim Size:

Front 14 × 1.40

Rear 12 × 1.60

Suspension:

Front Telescopic fork

Rear Swingarm (mono-shock)

Front Suspension Travel:

KLX110C 110 mm (4.3 in.)

KLX110D 140 mm (5.5 in.)

Rear Wheel Travel:

KLX110C 110 mm (4.3 in.)

KLX110D 132 mm (5.2 in.)

Front Fork Oil:

Type Kawasaki Fork Oil SS8

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Amount (Per One Unit):

KLX110C 165 mL (5.6 US oz.)

KLX110D 182 mL (6.2 US oz.)

BRAKES

Type:

Front Drum brake

Rear Drum brake

ELECTRICAL EQUIPMENT

Battery 12 V 3 Ah

Specifications are subject to change without notice.

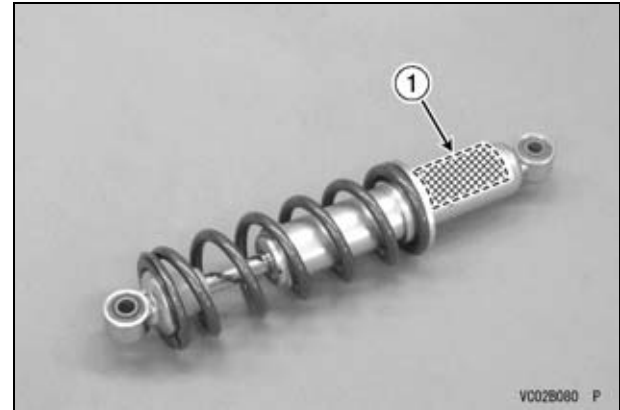
GENERAL INFORMATION

LOCATION OF LABELS

All warning labels which are on your vehicle are repeated here. Read labels on your vehicle and understand them thoroughly. They contain information which is important for your safety and the safety of anyone else who may operate your vehicle. Therefore, it is very important that all warning labels be on your vehicle in the locations shown. If any label is missing, damaged, or worn, get a replacement from your Kawasaki dealer and install it in the correct position.

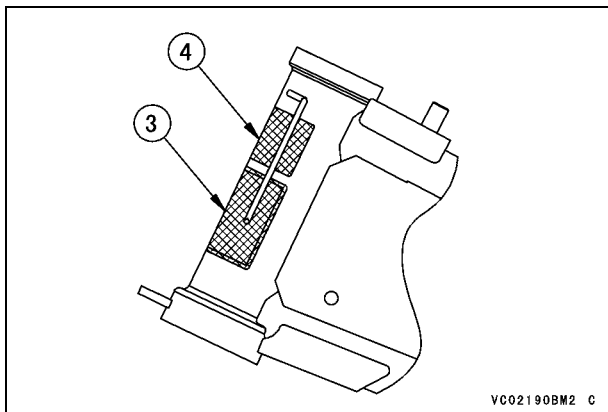
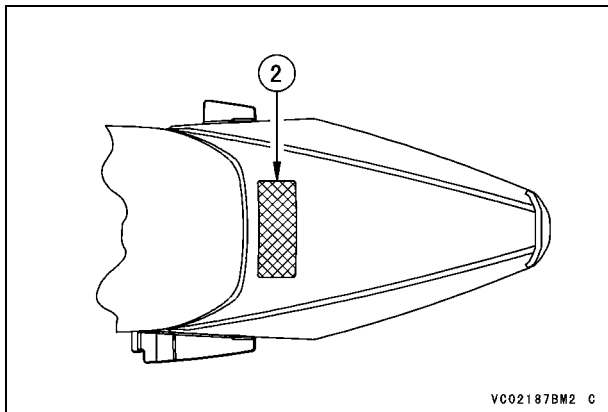
NOTE

- *The sample warning labels in this section have part numbers to help you and your dealer obtain the correct replacement.*
- *Refer to the actual vehicle label for model specific data grayed out in the illustration.*



1. Rear Shock Absorber Warning

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- 2. Important Information
- 3. Vehicle Emission Control Information
- 4. Noise Emission Control Information

1)

| |
|--|
|  WARNING |
| This unit contains high pressure nitrogen gas. Mishandling can cause explosion. ● Do not incinerate, puncture or open. |
|  AVERTISSEMENT |
| Cette unité contient de l'azote à haute pression. Une mauvaise manipulation peut entraîner d'explosion. ● Ne pas brûler ni perforer ni ouvrir. |
|  警告 |
| 高圧窒素ガス入りです。 取り扱いを誤ると爆発する恐れがあります。 ● 火中への投入、穴あけ、分解はしないでください。 |

BD0323802 C

3)

| | |
|---------------------------------------|------------------------|
| VERIFICATION CONTROL INFORMATION | |
| ENGINE FAMILY CODE --- [] | DATE OF MFG. ----- [] |
| MODE (S) | [] |
| EXHAUST EMISSION CONTROL SYSTEM ----- | [] |
| FUEL SYSTEM | [] |
| TYPE OF SPEED CONTROLS | [] |
| CONTROL MIND [] | CONTROL [] REV [] |
| TYPE SPEED [] | REV A NEUTRAL [] |
| TYPE REV [] | REV ADJUSTMENT [] |
| VALVE CLEARANCE | IN PAIR [] |
| SPARK PLUG | TYPE [] |
| FUEL | [] |
| ENGINE OIL | [] |
| | [] |
| | [] |

VC02136B S

2)

| |
|---|
| IMPORTANT INFORMATION |
| <ul style="list-style-type: none"> • This vehicle is designed for the operator only, no passengers. • This vehicle is an off-road motorcycle only and was not manufactured for use on public streets, roads or highways. • Respect the environment and the rights of other people. • Read owner's manual. |

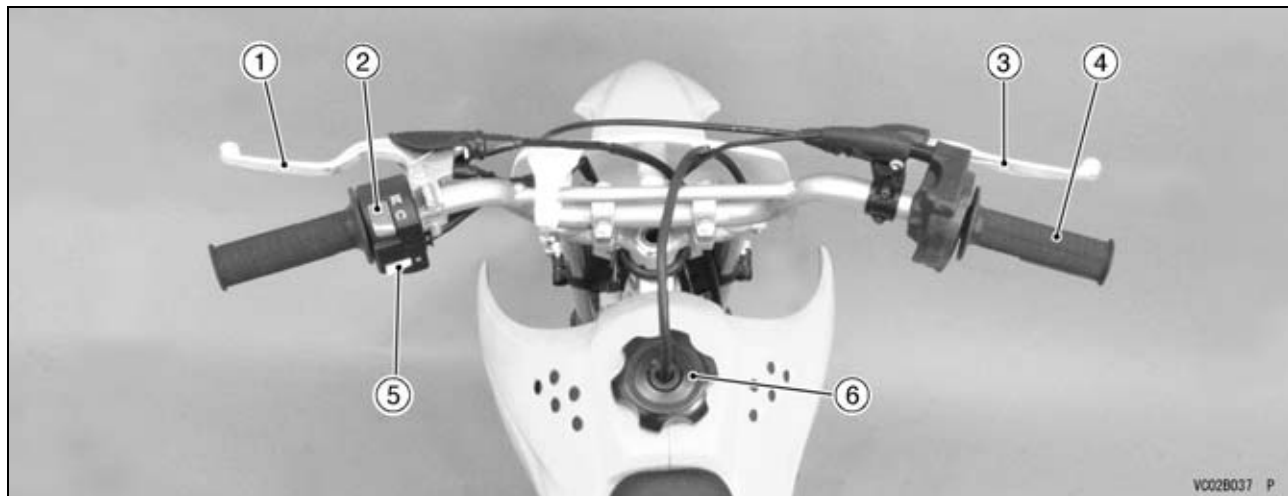
56071-0019

4)

| |
|---|
| MOTORCYCLE NOISE EMISSION CONTROL INFO. |
| THIS [] MOTORCYCLE MEETS EPA NOISE EMISSION REQUIREMENTS BY THE FEDERAL TEST PROCEDURE. MODIFICATIONS WHICH CAUSE THIS MOTORCYCLE TO EXCEED FEDERAL NOISE STANDARDS ARE PROHIBITED BY FEDERAL LAW. SEE OWNER'S MANUAL. [] |
| MODEL SPECIFIC CODE: [] |
| SEE VEHICLE IDENTIFICATION NUMBER ON STEERING HEAD NOISE LIMIT/CLOSING RPM: []DBA/[]RPM |

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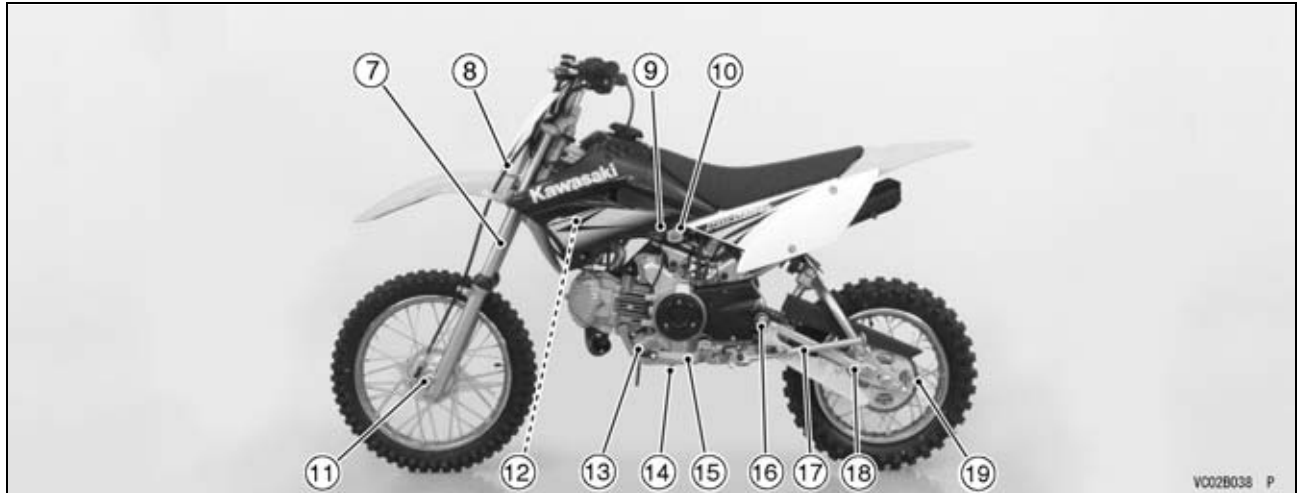
Location of Parts



1. Clutch Lever (KLX110D Model)
2. Engine Stop Switch

3. Front Brake Lever
4. Throttle Grip
5. Starter Button

6. Fuel Tank Cap



- 7. Front Fork
- 8. Brake Cable
- 9. Choke Knob
- 10. Fuel Tap
- 11. Brake Cam Lever

- 12. Air Cleaner
- 13. Oil Filter Cap
- 14. Engine Oil Drain Bolt
- 15. Shift Pedal
- 16. Chain Slipper

- 17. Side Stand
- 18. Swingarm
- 19. Drive Chain

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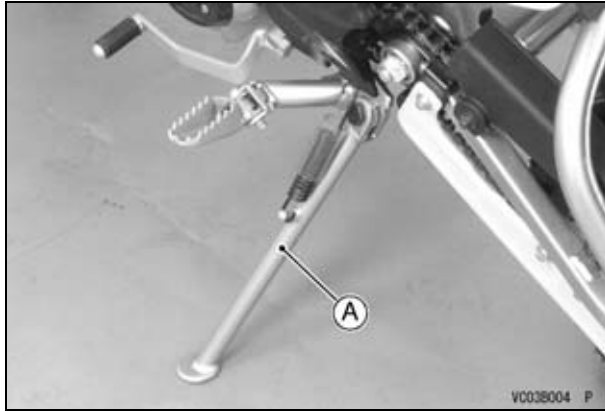
- 20. Muffler
- 21. Rear Shock Absorber
- 22. Seat
- 23. Fuel Tank

- 24. Throttle Limiting Screw
- 25. Kick Pedal
- 26. Rear Brake Pedal

- 27. Oil Level Inspection Window
- 28. Carburetor

Side Stand

The motorcycle is equipped with a side stand.



A. Side Stand

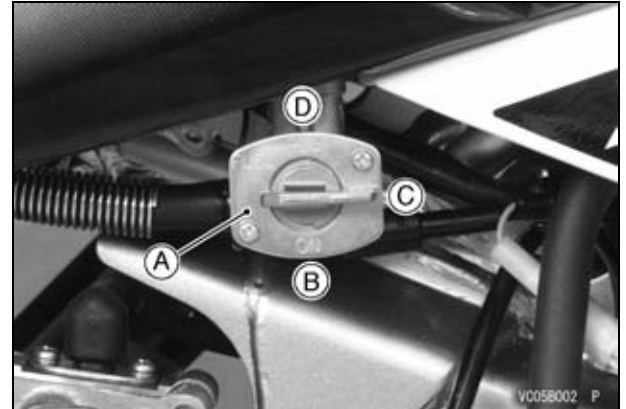
Do not sit on the motorcycle while it is on its side stand. Always kick the stand fully up before sitting on the motorcycle.

⚠ WARNING

Riding with the side stand down could cause an accident resulting in serious injury or death. Always be sure the side stand is fully raised before riding.

Fuel Tap

The fuel tap has three position; OFF, ON, and RES (reserve). For normal operation, turn the fuel tap lever to the ON position. If the fuel runs out with the tap in the ON position, the last approximately 0.4 L (0.11 US gal) of usable fuel remains can be used by turning the tap lever to the RES position.



- A. Fuel Tap**
- B. ON Position**
- C. OFF Position**
- D. RES Position**

Turn the fuel tap lever to OFF position when the fuel tank is removed for maintenance and adjustments or the motorcycle is stored for a long time.

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NOTE

- Since riding distance is limited when on RES, re-fuel at the earliest opportunity.
- Make certain that the fuel tap lever is turned to ON (not RES), after filling up the fuel tank.

⚠ WARNING

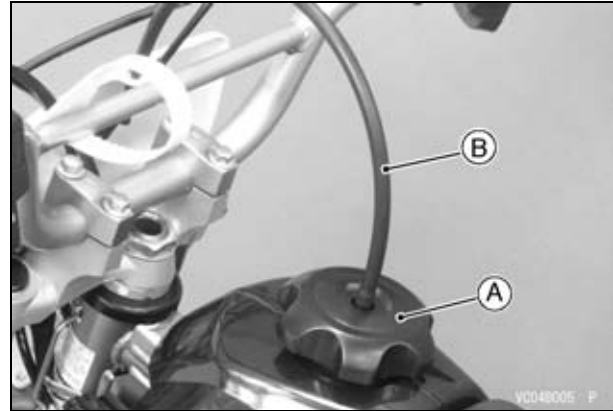
Practice operating the fuel tap with the motorcycle stopped. To prevent an accident you should be able to operate the fuel tap while riding without taking your eyes off the road. Be careful not to touch the hot engine while operating the fuel tap.

Fuel

The required of fuel is specified under “Fuel Requirement”.

The capacity of the fuel tank is 3.6 L (1.0 US gal). To open the fuel tank cap, pull out the breather hose from the hole in the number plate and turn the tank cap counterclockwise.

Avoid filling the tank in the rain or where heavy dust is blowing so that the fuel does not get contaminated.



- A. Fuel Tank Cap**
- B. Breather Hose**

⚠ WARNING

Gasoline is extremely flammable and can be explosive under certain conditions, creating the potential for serious burns. Move the engine stop switch to the \times position. Do not smoke. Make sure the area is well-ventilated and free from any source of flame or sparks; this includes any appliance with a pilot light. Never fill the tank completely to the top. If the tank is filled completely to the top, heat may cause the fuel to expand and overflow through the vents in the tank cap. After refueling, make sure the tank cap is closed securely. If gasoline is spilled on the fuel tank, wipe it off immediately.

Fuel Requirement -*Fuel Type*

Use clean, fresh unleaded gasoline with a minimum Antiknock Index of 87. The Antiknock Index is posted on service station pumps in the U.S.A. The octane rating of a gasoline is a measure of its resistance to detonation or “knocking”. The Antiknock Index is an average of the Research Octane Number (RON) and the Motor Octane Number (MON) as shown in the table below.

| Octane Rating Method | Minimum Rating |
|---|----------------|
| Antiknock Index $\frac{(\text{RON} + \text{MON})}{2}$ | 87 |

NOTICE

If engine “knocking” or “pinging” occurs, use a different brand of gasoline of a higher octane rating. If this condition is allowed to continue it can lead to severe engine damage. Gasoline quality is important. Fuels of low quality or not meeting standard industry specifications may result in unsatisfactory performance. Operating problems that result from the use of poor quality or nonrecommended fuel may not be covered under your warranty.

Fuels Containing Oxygenates

Gasoline frequently contains oxygenates (alcohols and ethers) especially in areas of the U.S. and Canada which are required to sell such reformulated fuels as part of a strategy to reduce exhaust emissions.

The types and volume of fuel oxygenates approved for use in unleaded gasoline by the U.S. Environmental Protection Agency include a broad

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range of alcohols and ethers, but only two components have seen any significant level of commercial use.

Gasoline/Alcohol Blends - Gasoline containing up to 10% ethanol (alcohol produced from agricultural products such as corn), also known as “gasohol” is approved for use.

NOTICE

Avoid using blends of unleaded gasoline and methanol (wood alcohol) whenever possible, and never use “gasohol” containing more than 5% methanol. Fuel system damage and performance problems may result.

Gasoline/Ether Blends - The most common ether is methyl tertiary butyl ether (MTBE). You may use gasoline containing up to 15% MTBE.

NOTE

○ *Other oxygenates approved for use in unleaded gasoline include TAME (up to 16.7%) and ETBE (up to 17.2%). Fuel containing these oxygenates can also be used in your Kawasaki.*

NOTICE

Never use gasoline with an octane rating lower than the minimum specified by Kawasaki.

Never use “gasohol” with more than 10% ethanol, or more than 5% methanol. Gasoline containing methanol must also be blended with cosolvents and corrosion inhibitors.

Certain ingredients of gasoline may cause paint fading or damage. Be extra careful not to spill gasoline or gasoline oxygenate blends during refueling.

When not operating your Kawasaki for 30 to 60 days, mix a fuel stabilizer (such as STA-BIL) with the gasoline in the fuel tank. Fuel stabilizer additives inhibit oxidation of the fuel which minimizes gummy deposits.

Never store this product with “gasohol” in the fuel system. Before storage it is recommended that you drain all fuel from the fuel system. See the Storage section in this manual.

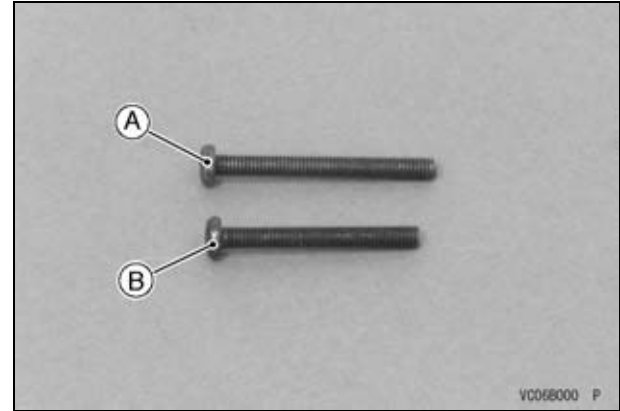
Throttle Limiting Screw

A screw-type throttle limiting screw can be equipped to this motorcycle to decrease the maximum engine power for a novice rider. The limiting screws function by restricting the turning degree of the throttle grip so that it opens to either 3/8 or 1/2 of full throttle.

Kawasaki recommends raising the level of the throttle limiting screw step-by-step as follows; The 3/8 degree screw can be used for the beginning rider, 1/2 degree screw for the semi-skilled rider, and no throttle limiting screw for riders with more advanced skills.

NOTE

- *Changing the position of the throttle limiting screw should only be done at the parents' discretion.*
- The longer screw is the 3/8 degree limiter, the short screw is the 1/2 degree limiter.

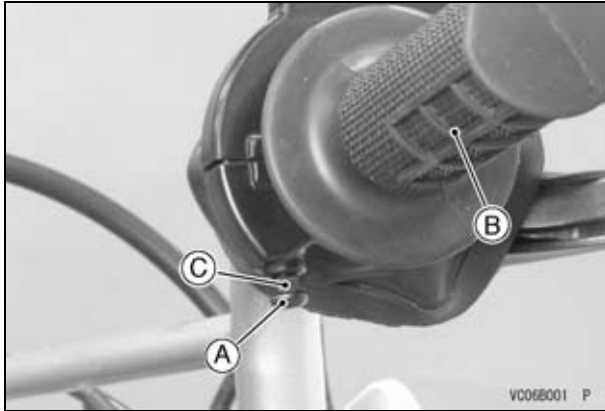


A. 3/8 Degree Screw 47 mm (1.9 in.)

B. 1/2 Degree Screw 42 mm (1.7 in.)

- Check that the throttle grip has 2 ~ 3 mm (0.08 ~ 0.12 in.) of play and turns smoothly.
- Remove the blank screw and locknut installed to the housing.
- Install the locknut of the blank screw to the throttle limiting screw.
- Screw the throttle limiting screw fully into the throttle housing and tighten the locknut.

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- A. Throttle Limiting Screw
- B. Throttle Grip
- C. Locknut



NOTICE

Use only the Kawasaki screws supplied with the motorcycle. Substituting non standard screws can damage the throttle housing.


NOTE

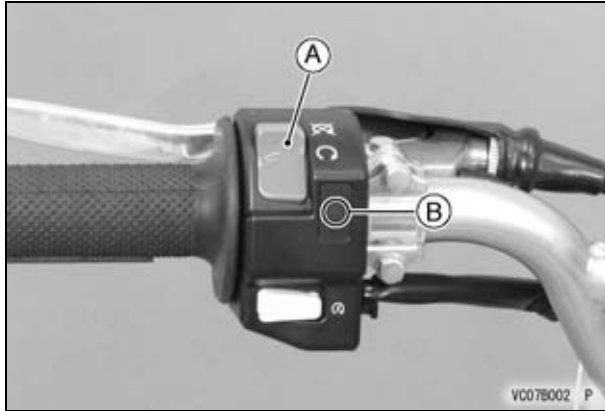
- *Store the uninstalled throttle limiting screw in a location where they will not be lost.*
- *Do not operate the motorcycle without inserting the throttle limiting screw or blank screw into the throttle housing. This is to keep dirt or water from entering the throttle housing.*

Engine Stop Switch

The engine stop switch is located on the left side of the handlebar. The engine stop switch must be in the  position for the motorcycle to operate. Move the switch to the  position to stop the engine.

NOTE

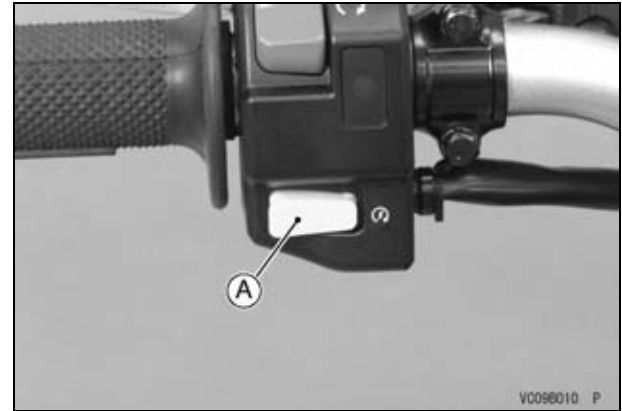
- *To avoid battery discharging, check that the engine stop switch is in the  position and the orange indicator light (LED) goes off, when the motorcycle is not used.*



A. Engine Stop Switch
B. Indicator Light (LED)

Starter Button

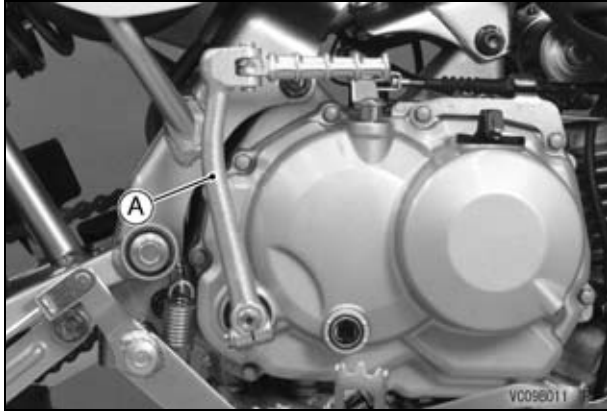
This motorcycle has the starter button.



A. Starter Button

Kick Pedal

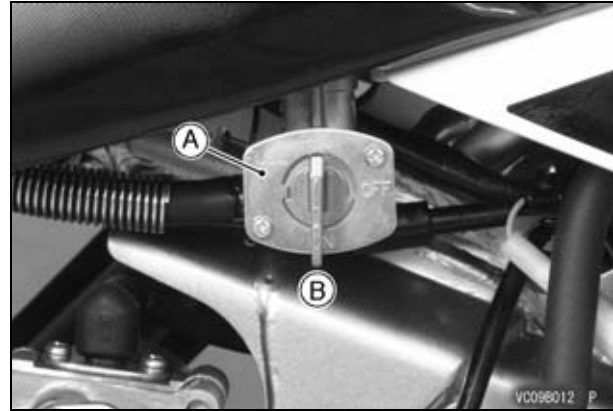
This motorcycle is equipped with a kick starting system. When using the kick pedal, make sure that the transmission is in neutral.



A. Kick Pedal

Starting the Engine

- Turn the fuel tap lever to the ON position.




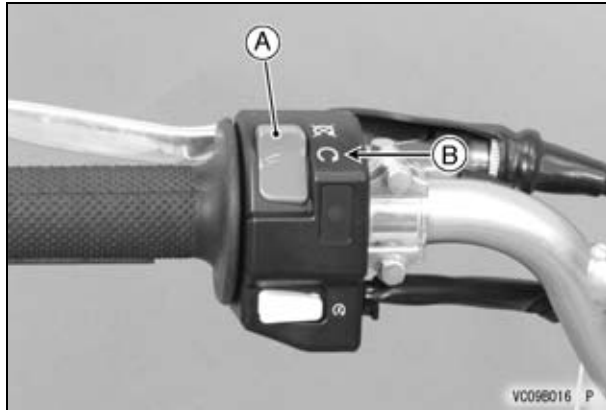
- A. Fuel Tap
- B. ON Position

- Shift the transmission into neutral.

NOTE

- *This motorcycle is equipped with a gear position switch that prevents the engine from starting when the transmission is not in neutral.*

- Check that the engine stop switch is in the  position.



A. Engine Stop Switch

B.  Position

- If the engine is cold, pull out the choke knob.



A. Choke Knob

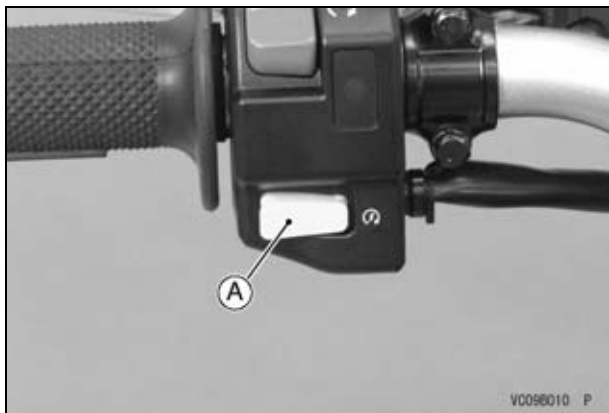
NOTE

- *When the engine is already warm or on hot days, open the throttle part way instead of using the choke, and then start the engine.*
- Leaving the throttle completely closed, push the starter button until the engine starts.

NOTE

- *For KLX110D model; when the clutch lever is pulled, the motorcycle can be started with the transmission in any gear.*

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A. Starter Button

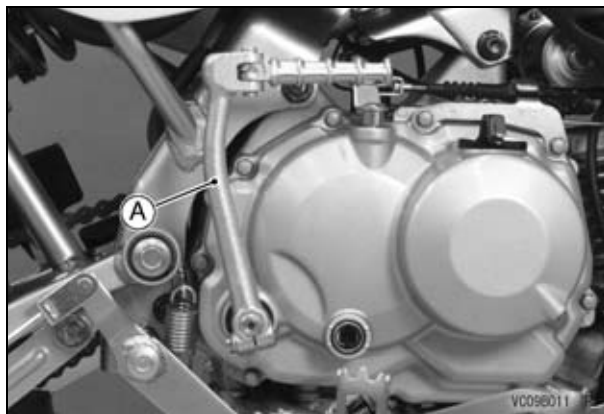
NOTICE

Do not operate the starter continuously for more than 5 seconds, or the starter will overheat and the battery power will drop temporarily. Wait 15 seconds between each operation of the starter to let it cool and the battery power recover.

NOTE

- For KLX110C model; when using the kick pedal, make sure that the transmission is in neutral.

- For KLX110D model; when using the kick pedal, make sure that the transmission is in neutral, and do not pull in the clutch lever.



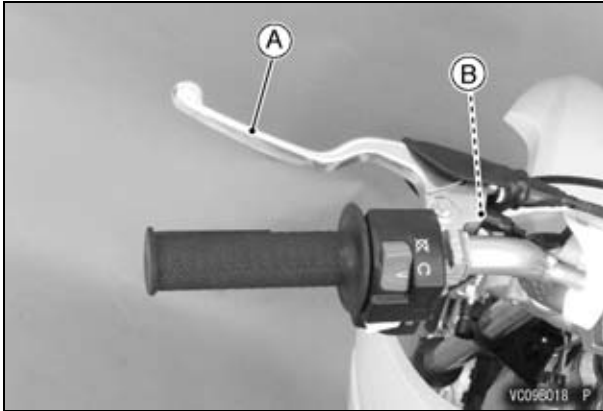
A. Kick Pedal

NOTE

- If the engine is flooded, crank the engine over with the throttle fully open until the engine starts.
- The KLX110D model is equipped with a starter lockout switch. This switch prevents the electric starter from operating when the clutch is engaged and the transmission is not in neutral.

NOTICE

Do not let the engine idle longer than five minutes, or engine overheating and damage may occur.



A. Clutch Lever

B. Starter Lockout Switch

- Gradually push the choke knob back a little at a time as necessary to keep the engine running properly during warm-up.
- When the engine is warmed up enough to idle without using the choke, push the choke knob all the way back.

NOTE

- *If you drive the motorcycle before the engine is warmed up, push the choke knob all the way back as soon as you start moving.*

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Moving Off

KLX110C Model

- Check that the side stand is up.
- Shift into 1st gear.
- Open the throttle slowly.

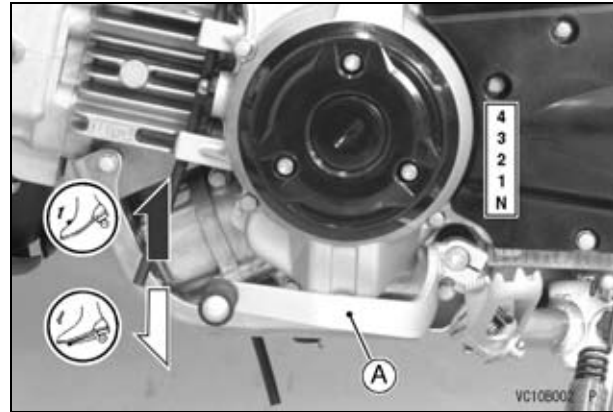
KLX110D Model

- Check that the side stand is up.
- Pull in the clutch lever.
- Shift into 1st gear.
- Open the throttle a little, and start to let out the clutch lever very slowly.
- As the clutch starts to engage, open the throttle a little more, giving the engine just enough fuel to keep it from stalling.

Shifting Gears

KLX110C Model

- Close the throttle completely.
- Shift into the next higher or lower gear.
- Open the throttle slowly.



A. Shift Pedal

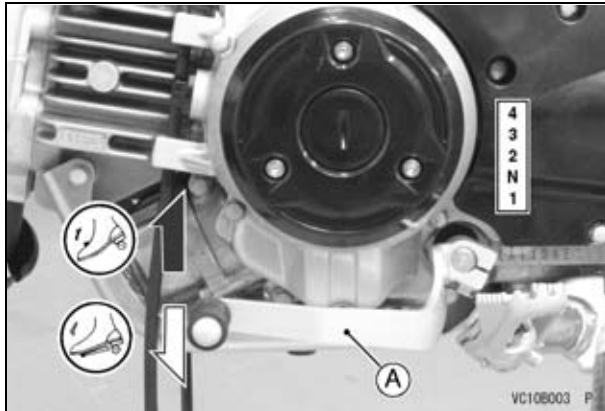
KLX110D Model

The KLX110D model is equipped with a 4-speed “return shift” transmission. The neutral is located halfway between 1st and 2nd gear. “Return shift” means that when shifting up or down, each gear must be engaged before the next higher or lower gear may be selected.

- To engage first gear from the neutral position, pull in the clutch lever and push down on the shift

pedal, gently release the clutch lever, then release the shift pedal.

- To shift up to the next gear, pull in the clutch lever, lift the shift pedal with your toes, gently release the clutch lever, and then release the shift pedal.
- To shift down to the next gear, pull in the clutch lever, push the shift pedal down as far as it will go, gently release the clutch lever, then release the shift pedal.



A. Shift Pedal

⚠ WARNING

Downshifting to a lower gear at high speed causes engine rpm to increase excessively, potentially damaging the engine and it may also cause the rear wheel to skid and cause an accident.

NOTICE

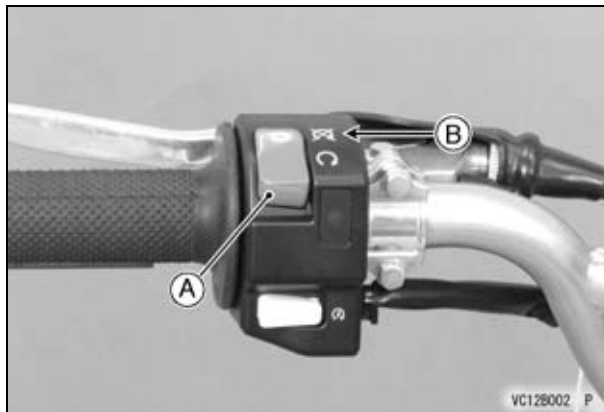
When changing gears, press firmly on the shift pedal to ensure proper shifting. Careless, incomplete shifting can cause the transmission to jump out of gear and lead to engine damage.

Stopping the Motorcycle

For maximum deceleration, close the throttle and apply both front and rear brakes. Pull in the clutch lever as the motorcycle comes to a stop (KLX110D model). Independent use of the front or rear brake may be advantageous in certain circumstances. Shift down progressively to ensure good engine response at all speeds.

Stopping the Engine

- Shift the transmission into the neutral position.
- Close the throttle completely.
- Push the engine stop switch to the \times position.



A. Engine Stop Switch

B. \times Position

- Turn the fuel tap lever to the OFF position.

NOTE

- To avoid battery discharging, check that the engine stop switch is in the \times position and the orange indicator light (LED) goes off, when the motorcycle is not used.

Break-In

The first one hour that the motorcycle is ridden is designed as the break-in period. If the motorcycle is not used carefully during this period, you may very well end up with a “broken down” instead of a “broken in” motorcycle after the long use.

Do not start moving or race the engine immediately after starting it, even if the engine is already warm. Run the engine for two or three minutes at idle speed to give the oil a chance to work up into all the engine parts.

Avoid the quick acceleration or starting and drive prudently for the first one hour of operation. Let the motorcycle cool completely. The motorcycle is ready for regular operation after this procedure is carried out.

36 GENERAL INFORMATION

Daily Pre-Ride Checks

Check the following items each day before you ride. The time required is minimal, and habitual performance of these checks will help ensure a safe, reliable ride.

If any irregularities are found during these checks, refer to the appropriate section and take the action required to return the motorcycle to a safe operating condition.

WARNING

Failure to perform these checks before operation may result in serious damage or an accident. Always perform daily checks before operation.

DANGER

Exhaust gas contains carbon monoxide, a colorless, odorless poisonous gas. Inhaling carbon monoxide can cause serious brain injury or death. DO NOT run the engine in enclosed areas. Operate only in a well-ventilated area.

Engine

| | |
|-----------------------|---|
| Engine Oil | No leakage Level correct |
| Spark Plug | Correctly torqued |
| Clutch | Functions properly |
| Carburetor | Properly adjusted |
| Air Cleaner | Clean Apply oil to air cleaner element Properly installed |
| Muffler | No damage Properly installed |
| Engine Sprocket | No wear or damage |

Frame

| | |
|------------------------------|--|
| Tires | Overall condition good No wear or damage Pressure correct Air valve cap installed |
| Spokes | No looseness |
| Drive Chain | Overall condition good Chain slack correct Oil if necessary |
| Front and Rear Brakes | Function properly Lever and pedal play correct No wear to brake lining |
| Throttle | Functions properly Throttle grip returns smoothly |
| Steering | Smooth but not loose from lock to lock No binding due to control cables |
| Front Fork | Functions properly No oil leakage |
| Rear Shock Absorber | Functions properly No oil leakage |
| Fuel Tank | Mounted securely No fuel leakage |
| Rear Sprocket | No wear or damage |
| Electrical Equipment | Functions properly |
| Engine Stop Switch | Functions properly |
| Nuts, Bolts, Fasteners | Properly tightened |

MAINTENANCE AND ADJUSTMENT

The maintenance and adjustments outlined in this chapter must be carried out in accordance with the Periodic Maintenance Chart to keep the vehicle in good running condition. **The initial maintenance is vitally important and must not be neglected.**

With a basic knowledge of mechanics and the proper use of tools, you should be able to carry out many of the maintenance items described in this chapter. If you lack proper experience or doubt your ability, all adjustments, maintenance, and repair work should be completed by a qualified technician. Please note that Kawasaki cannot assume any responsibility for damage resulting from incorrect or improper adjustment done by the owner.

EMISSION CONTROL INFORMATION

To protect the environment in which we all live, Kawasaki has incorporated crankcase emission (1) and exhaust emission (2) control systems in compliance with applicable regulations of the United States Environmental Protection Agency. Additionally, Kawasaki has incorporated an evaporative emission control system (3) in compliance with applicable regulations of the United States Environmental Protection Agency.

1. Crankcase Emission Control System

This system eliminates the release of crankcase vapors into the atmosphere. Instead, the vapors are routed through an oil separator to the intake side of the engine. While the engine is operating, the vapors are drawn into the combustion chamber, where they are burned along with the fuel and air supplied by the carburetor.

2. Exhaust Emission Control System

This system reduces the amount of pollutants discharged into the atmosphere by the exhaust of this vehicle. The fuel and ignition systems of this vehicle have been carefully designed and constructed to ensure an efficient engine with low exhaust pollutant levels.

3. Evaporative Emission Control System

The evaporative emission control system for this vehicle consists of low permeation fuel hoses and a fuel tank.

MAINTENANCE

Proper maintenance is necessary to ensure that your vehicle will continue to have low emission levels. This Owner's Manual contains maintenance operations recommended for your vehicle. Maintenance operations necessary to ensure compliance with the applicable emission standards are noted in the Periodic Maintenance Chart. As the owner of this vehicle, you have the responsibility to make sure that the recommended maintenance is carried out according to the instructions in this Owner's Manual at your own expense.

You should keep a maintenance record for your vehicle. To assist you in keeping this record, we have provided space at the end of this manual where an authorized Kawasaki dealer, or someone equally competent, can record the maintenance. You should also retain copies of maintenance work orders, receipts, etc., as verification of this maintenance.

WARRANTY

This vehicle is designed, built, and equipped in compliance with applicable regulation of the United States Environmental Protection Agency (EPA) at the time of sale. The EPA requires that your vehicle comply with certain emissions regulation during a portion of its useful life and is free from defects in material and workmanship which could cause the vehicle to fail to conform with applicable regulation. Please read your Kawasaki Limited Emission Control Systems Warranty delivered with this Owner's Manual carefully and keep it valid by complying with the owner's obligations it contains. To obtain warranty service, the Kawasaki Limited Emission Control Systems Warranty requires that you return your vehicle to an authorized Kawasaki dealer for remedy under warranty.

TAMPERING WITH EMISSION CONTROL SYSTEM PROHIBITED:

Federal regulations and California State law prohibit the following acts or the causing thereof: (1) the removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purposes of emission control prior to its sale or delivery to the ultimate purchaser or while it is in use, or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Among those acts presumed to constitute tampering are the acts listed below:

Do not tamper with the original emission related parts:

- Carburetor or internal parts
- Spark plug
- Magneto ignition system
- Air cleaner element

40 MAINTENANCE AND ADJUSTMENT

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED:

Federal law prohibits the following acts or the causing thereof: (1) the removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use, or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Among those acts presumed to constitute tampering are the acts listed below:

- Replacement of the original exhaust system or muffler with a component not in compliance with Federal regulations.
- Removal of the muffler or any internal portion of the muffler.
- Removal of the air box or air box cover.
- Modifications to the muffler or air intake system by cutting, drilling, or other means if such modifications result in increased noise levels.

Periodic Maintenance Chart

The maintenance and adjustments outlined in this chapter are easily carried out and must be done in accordance with the Periodic Maintenance Chart to keep the motorcycle in good running condition.

1. Periodic Inspection (Engine Related Item)

| OPERATION | FREQUENCY | Every | | | See Page |
|---|---------------------------------|------------------------|--------------------------|---|----------|
| | Initial 5 hours (1 month) | 50 hours (6 months) | 100 hours (12 months) | | |
| ○ Spark plug - clean and inspect † | | | ● | ● | 50 |
| K Clutch plates - inspect † | ● | ● | ● | | – |
| Clutch - inspect | ● | ● | ● | | 60 |
| K Valve clearance - inspect † | ● | | ● | | 62 |
| ○ Air cleaner element - clean † | ● | ● | ● | | 55 |
| ○ Idle speed - inspect † | | Every ride | | | 59 |
| ○ Throttle cable - inspect and adjust | ● | ● | ● | | 57 |
| K Fuel tap - clean | | | ● | ● | – |
| Spark arrester - clean | | | | ● | 63 |
| Engine sprocket - inspect † | | | ● | ● | 70 |
| K Fuel hose, connections - inspect † | | | ● | ● | 84 |

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2. Periodic Inspection (Chassis Related Item)

| OPERATION | FREQUENCY | Initial | Every | | See Page |
|--|-----------|----------------------|------------------------|--------------------------|----------|
| | | 5 hours (1 month) | 50 hours (6 months) | 100 hours (12 months) | |
| Brake - adjust † | | | Every ride | | 75, 76 |
| Brake lining wear - inspect † | | | Every ride | | 72 |
| K Brake camshaft - lubricate | | | ● | ● | – |
| Spoke tightness and rim runout - inspect † | | ● | ● | ● | 82 |
| Drive chain - inspect and adjust | | | Every ride | | 65 |
| Drive chain - lubricate | | | Every ride | | 71 |
| Drive chain wear - inspect † | | ● | ● | ● | 68 |
| Drive chain guide and slipper - inspect † | | | ● | ● | 70 |
| Front fork - clean and inspect | | | ● | ● | 80 |
| K Front fork oil - inspect † | | | Every year | | – |
| Nuts, bolts, fasteners - inspect † | | ● | ● | ● | 89 |
| Steering play - inspect † | | ● | ● | ● | 77 |
| K Steering stem bearing - lubricate | | | | ● | – |
| Rear sprocket - inspect † | | | ● | ● | 70 |

MAINTENANCE AND ADJUSTMENT 43

| OPERATION | FREQUENCY | Initial | Every | | See Page |
|--|-----------|----------------------|------------------------|--------------------------|----------|
| | | 5 hours (1 month) | 50 hours (6 months) | 100 hours (12 months) | |
| Battery - inspect † | | | ● | ● | 84 |
| Battery terminal - inspect † | | | ● | ● | 86 |
| General lubrication - perform | | ● | ● | ● | 95 |
| Side stand - inspect † | | ● | | ● | – |
| K Wheel bearing - inspect † | | | ● | ● | – |
| K Swingarm pivots - inspect † | | ● | ● | ● | – |
| K Rear shock absorber - inspect † | | | ● | ● | 81 |
| Frame - inspect | | ● | ● | ● | – |
| Wheels/tires - inspect | | ● | ● | ● | 81 |
| Cable - inspect | | Every year | | | – |

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3. Periodic Replacement (Engine and Chassis Related Item)

| OPERATION | FREQUENCY | Initial | Every | | See Page |
|----------------------------------|-----------|----------------------|------------------------|--------------------------|----------|
| | | 5 hours (1 month) | 50 hours (6 months) | 100 hours (12 months) | |
| Engine oil - change | | ● | ● | ● | 46 |
| Oil filter - replace | | ● | | ● | 46 |
| K Fuel hose - replace | | Every 5 years | | | — |
| K Front fork oil - change | | | ● | ● | — |

†: Replace, add, adjust, clean or torque if necessary.

K: Should be serviced by referring to the Service Manual or an authorized Kawasaki dealer.

○: Emission-related Item

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 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.

 WARNING

Motorcycle operation with insufficient, deteriorated, or contaminated engine oil will cause accelerated wear and may result in engine or transmission seizure, accident, and injury. Check the oil level before each ride and change the oil according to the periodic maintenance chart in the Owner's Manual.

NOTICE

Racing the engine before the oil reaches every part can cause engine seizure.

Oil Level Inspection

- If the oil has just been changed, let the motorcycle sit a few minutes allowing the oil to settle.
- Start the engine and run it for several minutes **at idle speed. Do not run the engine at high engine speed.**
- Stop the engine and wait several minutes for the oil to settle.
- Check the engine oil level with the motorcycle vertical through the oil level inspection window on the lower right side of the engine. The oil level should come up between the high and low level lines next to the oil level inspection window.

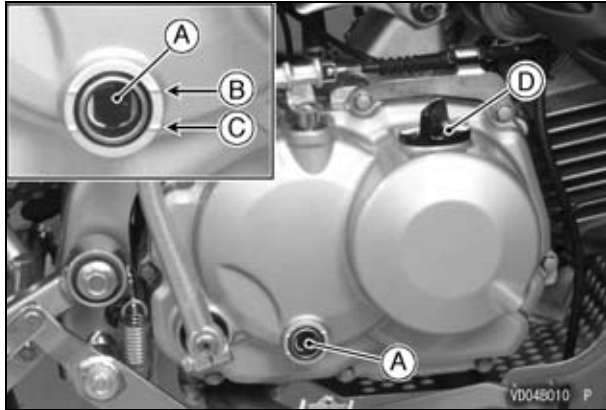
NOTE

- *If the oil level is too high, remove the excess oil using a syringe or other suitable device.*
- *If the oil level is too low, add the correct amount of oil through the oil filler opening. Use oil of the same type and brand as those of the one that is already in the engine.*

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NOTE

- If no oil appears in the oil level inspection window, tip the motorcycle slightly to the right until oil is visible then return to an upright position. If no oil appears even when tipped at an extreme angle, remove the drain bolt to empty any oil that may be in the transmission and crankcase, reinstall the drain bolt and refill with the specified amount of oil.



- A. Oil Level Inspection Window
- B. High Level Line
- C. Low Level Line
- D. Oil Filler Plug

Oil and/or Oil Filter Change

The engine oil and/or oil filter should be changed periodically to ensure long engine life.

- Warm up the engine thoroughly so that the oil will pick up any sediment and drain easily.
- Set the motorcycle up on its side stand.
- Stop the engine, and place a container beneath it.
- Remove the oil filler plug.
- Remove the oil drain bolt and position the vehicle perpendicular to the ground to allow all the oil to drain.

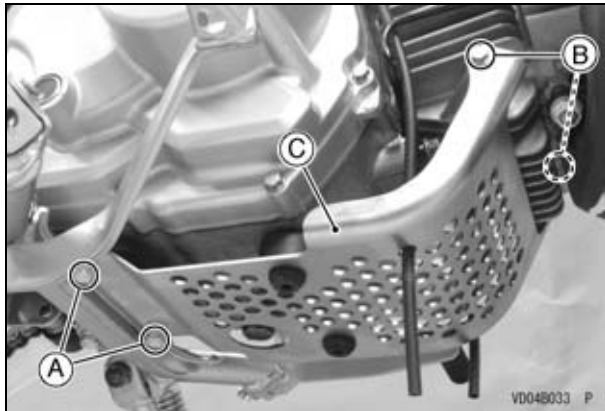


- A. Drain Bolt

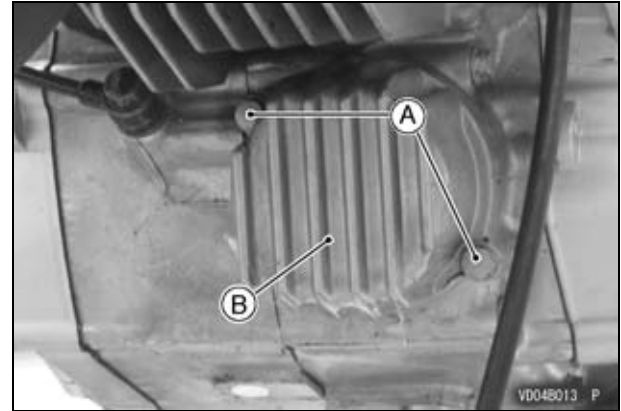
⚠ WARNING

Engine oil is a toxic substance. Dispose of used oil properly. Contact your local authorities for approved disposal methods or possible recycling.

- When the oil filter is replaced, remove the engine guard and oil filter cap bolts and take off the cap with O-ring and spring.



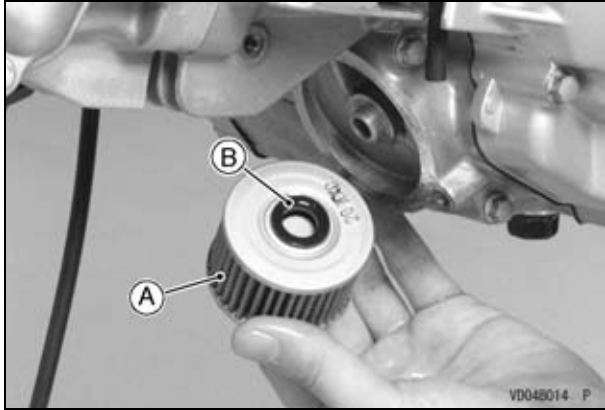
- A. Footpeg Bracket Bolts**
- B. Bolts**
- C. Engine Guard**



- A. Bolts**
- B. Oil Filter Cap**

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- Replace the oil filter element with a new one.
- Install the oil filter element with the grommet toward the engine.



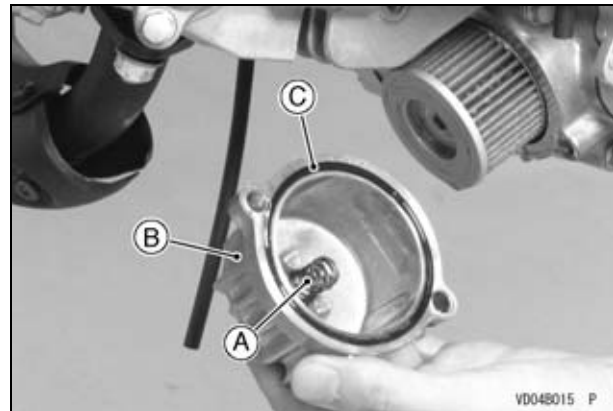
A. Oil Filter Element
B. Grommet

- Install the spring to the oil filter cap.
- Install the oil filter cap with the high-temperature grease applied to a new O-ring and tighten its bolts to the specified torque.

Tightening Torque

Oil Filter Cap Bolts:

5.2 N·m (0.53 kgf·m, 46 in·lb)



A. Spring
B. Oil Filter Cap
C. O-ring

- After the oil has completely drained out, install the drain bolt with its new gasket. Proper torque for it is shown in the table.

Tightening Torque

Engine Oil Drain Bolt:
29 N·m (3.0 kgf·m, 21 ft·lb)

NOTE

- *Replace the gasket and O-ring with a new one.*
- Fill the engine up to the high level line with good quality engine oil specified in the table.

Recommended Engine Oil

Type:
Kawasaki Performance 4-Stroke Motorcycle Oil*
Kawasaki Performance 4-Stroke Semi-Synthetic Oil*
Kawasaki Performance 4-Stroke Full Synthetic Oil*
or other 4-stroke oils with API SG, SH, SJ, SL, SM and JASO MA, MA1, MA2 rating

Viscosity:
SAE 10W-40

*Kawasaki Performance Oils and Lubricants have been specifically engineered for your vehicle. Consistent use of these products meets or exceeds warranty and service requirements and can help to extend the life of your Kawasaki.

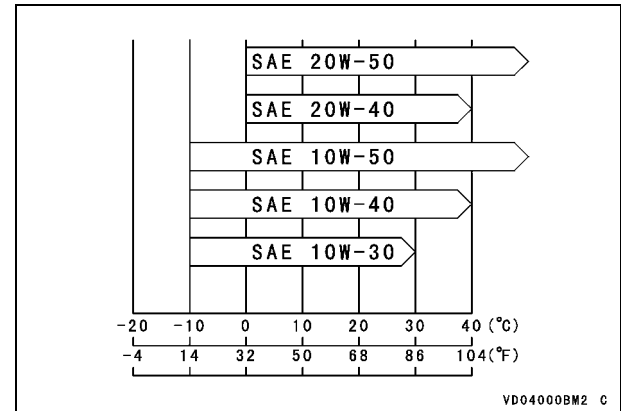
NOTE

- *Do not add any chemical additive to the oil. Oils fulfilling the above requirements are fully formulated and provide adequate lubrication for both the engine and the clutch.*

Engine Oil Capacity

Capacity:
0.9 L (1.0 US qt) (When filter is not removed)
1.0 L (1.1 US qt) (When filter is removed)
1.1 L (1.2 US qt) (When engine is completely dry)

The oil viscosity may need to be changed to accommodate atmospheric conditions in your riding area.



- Tighten the oil filler plug.
- Install the engine guard and tighten the bolts.

Tightening Torque

Footpeg Bracket Bolts:
25 N·m (2.5 kgf·m, 18 ft·lb)

- Start the engine.

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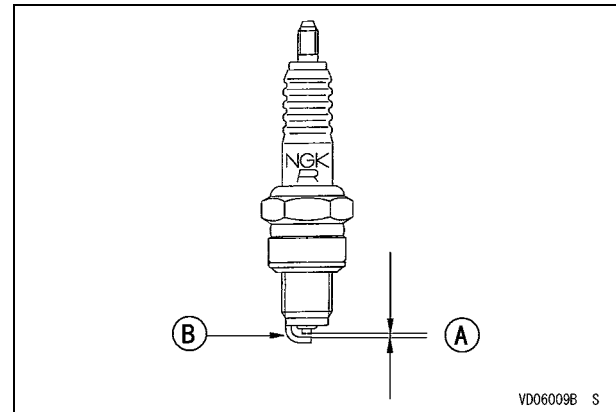
- Check the oil level and oil leakage.

Spark Plug

The spark plug should be taken out periodically for inspection and regapping. Measure the gap with a wire-type thickness gauge. If incorrect, adjust the gap to the specified value by bending the outer electrode.

Spark Plug Gap

| | |
|--------|----------------------------------|
| CR6HSA | 0.6 ~ 0.7 mm (0.024 ~ 0.028 in.) |
|--------|----------------------------------|



A. Gap

B. Outer Electrode

If the plug is oily or has carbon built up on it, clean it. The plug may also be cleaned using a high flash-point solvent and a nonmetal brush (nylon etc.). If the spark plug electrodes are corroded, or damaged, or if the insulator is cracked, replace the plug. The standard spark plug is shown in the table below.

Standard Spark Plug

| |
|------------|
| NGK CR6HSA |
|------------|

Spark Plug Removal and Installation

- Clean the cylinder head around the spark plug hole before removing the spark plug.
- Pull the spark plug cap off the plug before removing the spark plug.



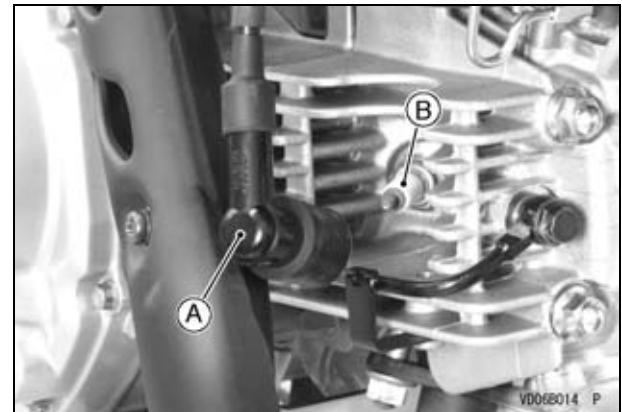
A. Spark Plug Cap

- Apply a suitable wrench to the spark plug.
- Loosen and remove the spark plug.
- When reinstalling the spark plug, torque it to specification.

Tightening Torque

| |
|--|
| Spark Plug: 13 N·m (1.3 kgf·m, 115 in·lb) |
|--|

- Fit the plug cap securely onto the spark plug, and pull the cap lightly to make sure that it is properly installed.



**A. Plug Cap
B. Spark Plug**

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Air Cleaner

A clogged air cleaner restricts the air intake, increases fuel consumption, reduces engine power, and can cause spark plug fouling. Inspect the air intake system, which includes the air filter and air duct to the carburetor, and the duct clamp and carburetor, before each practice session.

⚠ WARNING

If dirt or dust is allowed to pass through into the carburetor, the throttle may become stuck, possibly causing accident. Be sure to keep the dust from entering during cleaning.

NOTICE

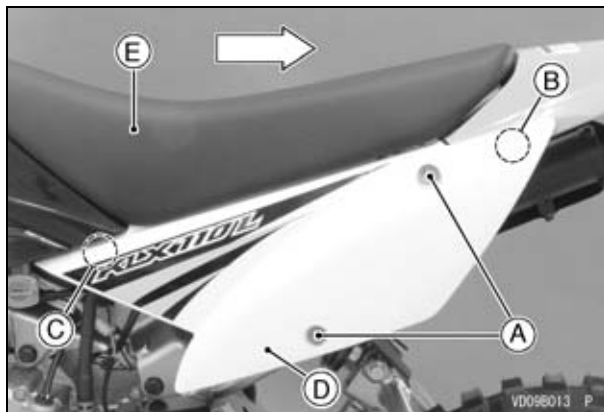
A clogged air cleaner will affect fuel mixture to the engine and reduce engine power and cause spark plug fouling.

NOTE

- In dusty areas, the element should be cleaned more frequently than recommended interval.
- After riding through rain or on muddy roads, the element should be cleaned immediately.

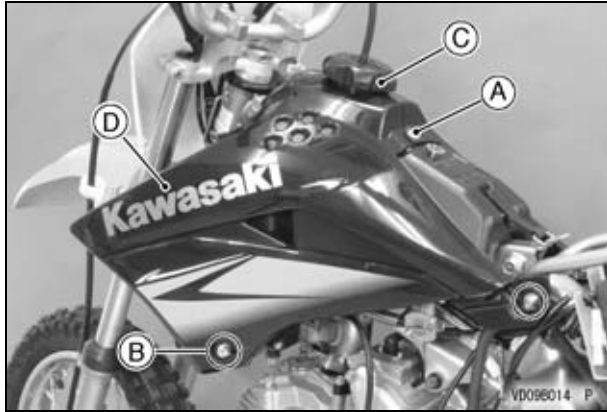
Element Removal and Inspection

- Remove the bolts on the right and left sides.
- Clear the projections from the grommets and hook portions from the slots, and remove the side covers.
- Remove the seat backward.



- A. Bolts
- B. Projection and Grommet
- C. Hook Portion and Slot
- D. Side Cover
- E. Seat

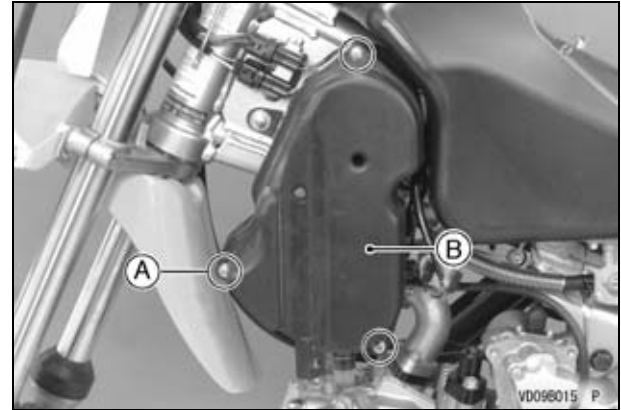
- Remove the screw and bolts on the right and left sides.
- Remove the fuel tank cap and shroud.



- A. Screw
- B. Bolts
- C. Fuel Tank Cap
- D. Shroud

- Install the fuel tank cap.

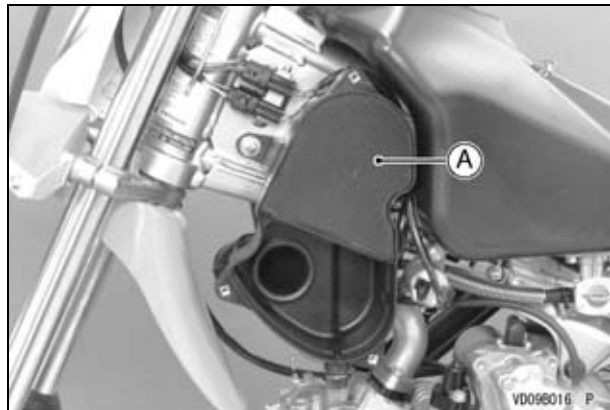
- Remove the screws and air cleaner cover.



- A. Screws
- B. Air Cleaner Cover

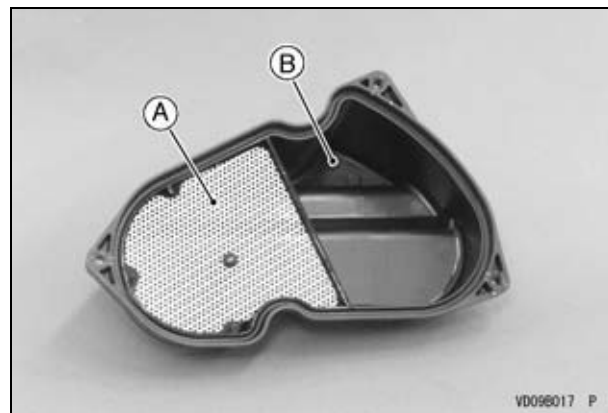
54 MAINTENANCE AND ADJUSTMENT

- Take out the air cleaner element.



A. Air Cleaner Element

- Check inside of the intake tract and carburetor for dirt. If dirty, clean the intake tract and carburetor thoroughly.
- Stuff a clean, lint-free towel on the air cleaner housing to keep dirt from entering the carburetor.
- Wipe out the inside of the air cleaner housing and wire screen of the air cleaner cover with a clean, damp towel.



A. Wire Screen
B. Air Cleaner Cover

- Inspect the element. If it is dirty, clean it. Also check if the element is in good condition (no tears, hardening or shrinkage). If damaged, replace the element or it will allow dirt into the carburetor.

⚠ WARNING

A clogged air cleaner may allow dirt and dust to enter the carburetor and the throttle may stick resulting in a hazardous operating condition. Clean the air cleaner according to the periodic maintenance chart; more often if the motorcycle is used in extremely dusty conditions.

NOTICE

A clogged air cleaner may allow dirt and dust to enter the engine, causing it to wear excessively or to become damaged.

Element Cleaning and Installation

- Clean the element in a bath of a high flash-point solvent or hot soapy water. Rinse the element with clear water to remove all traces of the cleaning solution.
- Squeeze the element dry in a clean towel.

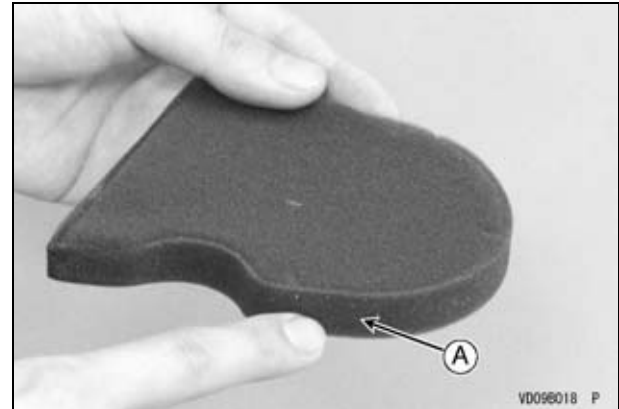
NOTICE

Do not twist, wring or blow the element dry to avoid damaging it.

⚠ WARNING

Gasoline and low flash-point solvents can be flammable and/or explosive and cause severe burns. Clean the element in a well-ventilated area, and take care that there is no spark or flame anywhere near the working areas. Do not use gasoline or low flash-point solvents to clean the element.

- After cleaning, let the filter dry completely. Saturate the element with a high-quality foam air filter oil and make sure that the oil is evenly applied throughout the element. Squeeze out the excess oil, but do not wring the element as this could cause tearing. In this case, too much oil is better than too little. Finally pat the element with a paper towel to remove any excess oil.
- Before installation, check the element for damage such as tears, hardening, or shrinkage. If damaged, replace the element.
- Apply grease to all mating surfaces and to the screw hole in the air cleaner housing and intake tract.
- Remove the towel from the carburetor.
- Coat the element lip and lip seat with a thick layer of all-purpose grease to assure a complete seal.



A. Apply grease.

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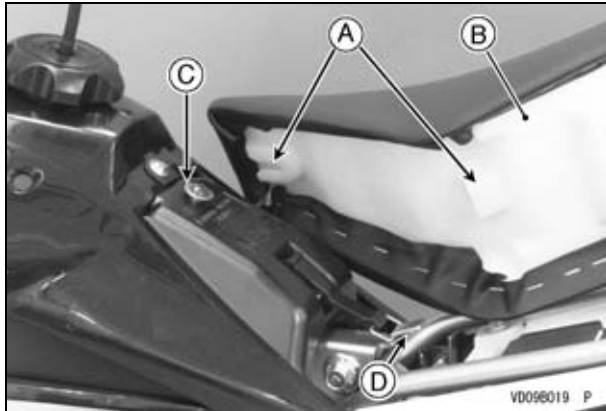
- Install the air cleaner element in the housing, and make sure the sealing surface of the element is seated properly.
- Install the air cleaner cover and tighten the screws.

Tightening Torque

Air Cleaner Cover Screws:

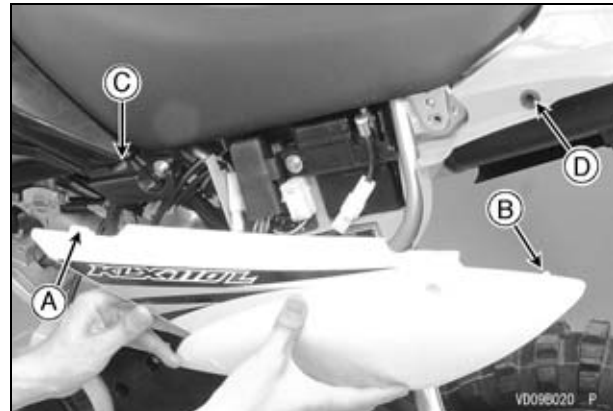
1.5 N·m (0.15 kgf·m, 13 in·lb)

- Remove the fuel tank cap.
- Install the shroud and fuel tank cap.
- Slip the slots of the seat to the tank washer and hook of the frame.



- A. Slots
- B. Seat
- C. Tank Washer
- D. Hook

- Insert the hook and projection into the slot and grommet.



- A. Hook
- B. Projection
- C. Slot
- D. Grommet

Oil Draining

- Inspect the plug to see if any oil or water has run down.



A. Plug

- If there are any oil, remove the plug and drain the oil.

WARNING

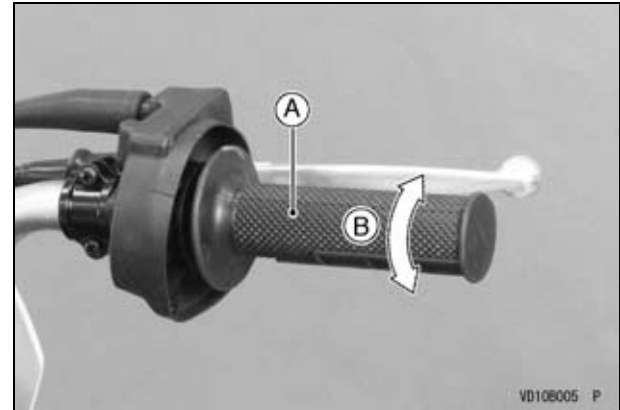
Oil on tires will make them slippery and can cause an accident and injury. Be sure to install the plug on the air cleaner housing after draining.

Throttle Cable

Throttle Cable Adjustment

Inspect the throttle grip for smooth operation in all steering positions. Check and adjust the throttle cable in accordance with the Periodic Maintenance Chart.

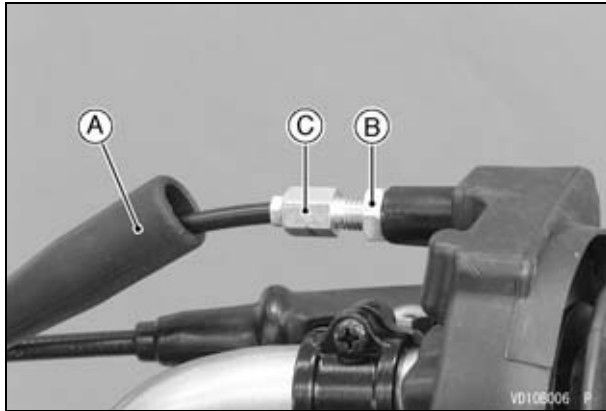
- Check that the throttle grip has 2 ~ 3 mm (0.08 ~ 0.12 in.) of play and turns smoothly.



A. Throttle Grip
B. 2 ~ 3 mm (0.08 ~ 0.12 in.)

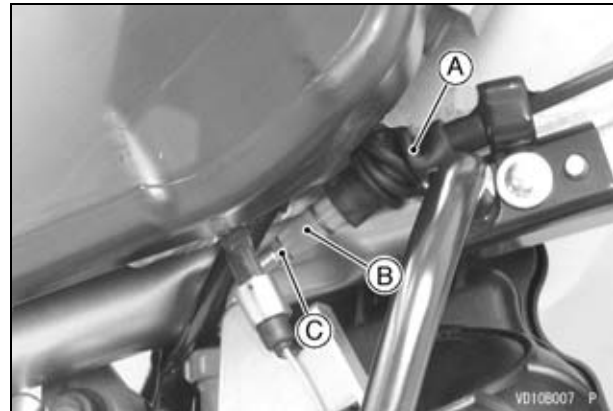
58 MAINTENANCE AND ADJUSTMENT

- If there is improper play, adjust it.
- Pull the rubber boot off the upper end of the throttle cable.
- Loosen the locknut on the upper end of the throttle cable and turn the adjuster to obtain the specified play.
- Tighten the locknut.



- A. Rubber Boot**
- B. Locknut**
- C. Adjuster**

- Install the rubber boot.
- If the free play cannot be set by adjusting the upper cable adjuster, use the adjuster on the lower end of the cable.
- Remove the shroud (see Air Cleaner section).
- Pull the rubber boot off the top of the carburetor and make the necessary free play adjustment with the adjuster on the lower end of the cable. Then, tighten the locknut and reinstall the rubber boot.



- A. Rubber Boot**
- B. Adjuster**
- C. Locknut**

- Check if the throttle grip moves smoothly from full open to close, and the throttle closes quickly and completely in all steering positions by the return spring. If not, check the throttle cable routing, grip free play, and cable damage. Then lubricate the throttle cable.
- With the engine idling, turn the handlebar both ways and check if handlebar movement changes the idle speed. If so, the throttle cable may be improperly adjusted or incorrectly routed, or damaged. Be sure to correct any of these conditions before riding.
- Reinstall the removed parts.

⚠ WARNING

Operation with improperly adjusted, incorrectly routed, or damaged cable could result in an unsafe riding condition. Be sure the control cable is adjusted and routed correctly, and is free from damage.

Carburetor

The following procedure covers the idle adjustment, which should be performed whenever the idle speed is disturbed.

Idle Speed Adjustment

- Thoroughly warm up the engine.

⚠ DANGER

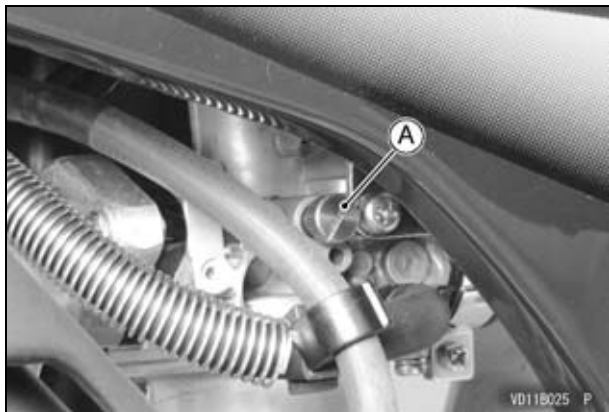
Exhaust gas contains carbon monoxide, a colorless, odorless poisonous gas. Inhaling carbon monoxide can cause serious brain injury or death. DO NOT run the engine in enclosed areas. Operate only in a well-ventilated area.

⚠ WARNING

The engine and exhaust system get extremely hot during normal operation and can cause serious burns. Never touch a hot engine or an exhaust pipe during idle speed adjustment.

- Adjust the idle speed 1 600 ~ 1 700 r/min (rpm) by turning the idle adjusting screw.

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A. Idle Adjusting Screw

- Open and close the throttle a few times to make sure the idle speed does not change, and readjust if necessary.
- With the engine idling, turn the handlebar both ways and check if handlebar movement changes the idle speed. If so, the throttle cable may be improperly adjusted, incorrectly routed, or damaged. Be sure to correct any of these conditions before riding.

WARNING

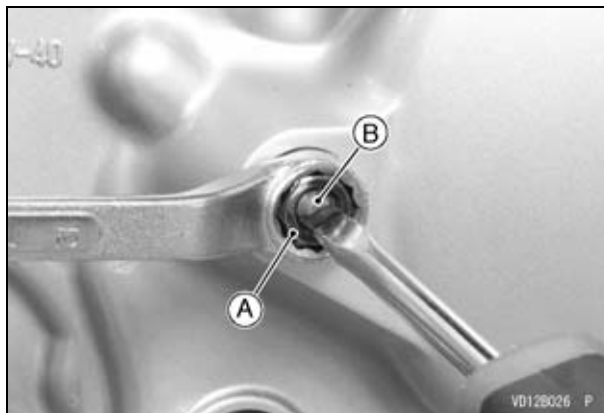
Operation with a damaged cable could result in an unsafe riding condition. Replace a damaged control cable before operation.

Clutch

KLX110C Model

Clutch Adjustment

- Loosen the locknut.
- Turn the clutch release adjusting screw counter-clockwise until it becomes hard to turn, and then back it out a quarter turn.



- A. Locknut**
B. Adjusting Screw

- Tighten the locknut without changing the adjusting screw position.

Tightening Torque

Clutch Adjusting Screw Locknut:
19 N·m (1.9 kgf·m, 14 ft·lb)

- Start the engine and check the clutch by operating the shift pedal.

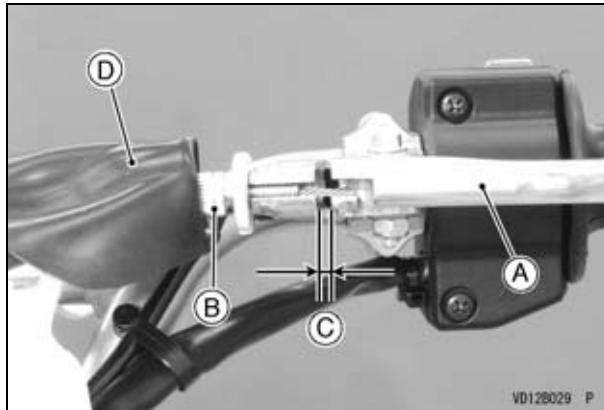
KLX110D Model

Clutch Lever Adjustment

Proper clutch lever free play is 2 ~ 3 mm (0.08 ~ 0.12 in.). Lever play increases with cable stretch and friction plate wear, requiring periodic adjustment.

When the clutch lever free play is out of specification, first try adjusting it at the clutch lever as follows.

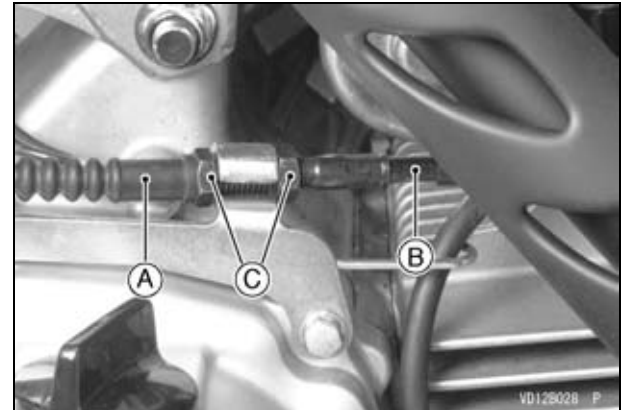
- Slide the clutch lever dust cover back.
- Turn the adjuster to obtain the proper amount of clutch lever free play.



- A. Clutch Lever
- B. Adjuster
- C. 2 ~ 3 mm (0.08 ~ 0.12 in.)
- D. Dust Cover

If the clutch lever free play cannot be adjusted at the clutch lever, make the adjustment further down the cable as follows.

- Turn the adjuster in all the way.
- Slide the dust cover at the clutch cable lower end out of place.
- Loosen the adjusting nuts at the lower end of the clutch cable, and pull the clutch cable tight and tighten the adjusting nuts so that the clutch lever free play is 2 ~ 3 mm (0.08 ~ 0.12 in.).



- A. Dust Cover
- B. Clutch Cable
- C. Adjusting Nuts

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- Slide the dust cover back into place.
- Start the engine, check that the clutch does not slip and it releases properly.

WARNING

Too much cable play can prevent clutch disengagement and cause an accident resulting in serious injury or death. When adjusting the clutch or replacing the cable, be sure the upper end of the clutch outer cable is fully seated in its fitting, or it could slip into place later, creating enough cable play to prevent clutch disengagement.

Valve Clearance

Valve and valve seat wear decreases valve clearance, upsetting valve timing.

NOTICE

If valve clearance is left unadjusted, wear will eventually cause the valves to remain partly open, which lowers performances, burns the valves and valve seats, and may cause serious engine damage.

Valve clearance for each valve should be checked and adjusted in accordance with the Periodic Maintenance Chart. Inspection and adjustment should be done by an authorized Kawasaki dealer.

Spark Arrester

This vehicle is equipped with a spark arrester. It must be properly maintained to ensure its efficiency. In accordance with the Periodic Maintenance Chart, clean the spark arrester.

NOTICE

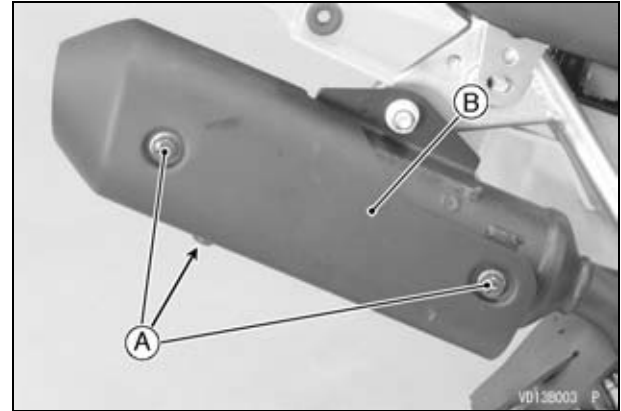
The spark arrester must be installed correctly and functioning properly to provide adequate fire protection.

Spark Arrester Cleaning

⚠ WARNING

The muffler can become extremely hot during normal operation and cause severe burns. Since the engine must be running during this procedure, wear heat-resistant gloves while cleaning the spark arrester.

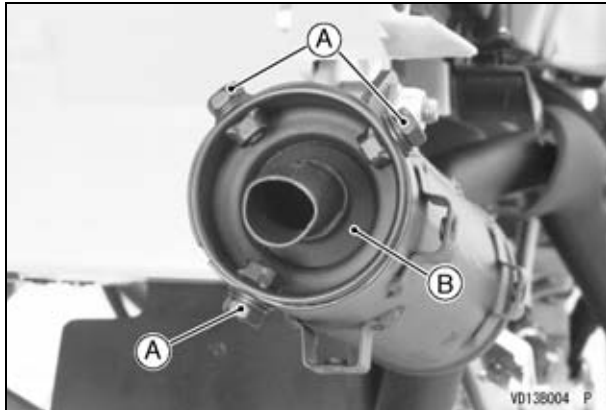
- Remove the right side cover (see Air Cleaner section).
- Remove the screws and muffler cover.



- A. Screws**
- B. Muffler Cover**

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- Remove the bolts and pull the spark arrester.



- A. Bolts
- B. Spark Arrester

- With a wire brush, remove the carbon off the inside of the spark arrester and muffler.



A. Spark Arrester

- Install the spark arrester into the rear end of the muffler.
- Tighten the spark arrester mounting bolts.

Tightening Torque

Spark Arrester Mounting Bolts:
8.8 N·m (0.90 kgf·m, 78 in·lb)

- Install the muffler cover and tighten the screws.

Tightening Torque

Muffler Cover Screws:
3.0 N·m (0.31 kgf·m, 27 in·lb)

- Install the removed parts.

Drive Chain

For safety and to prevent excessive wear, the drive chain must be checked, adjusted, and lubricated before riding. If the chain becomes badly worn or mal-adjusted - either too loose or too tight - it could jump off the sprockets or break.

WARNING

A chain that breaks or jumps off the sprockets could snag on the engine sprocket or lock the rear wheel, severely damaging the motorcycle and causing it to go out of control. Inspect the chain for damage and proper adjustment before each ride.

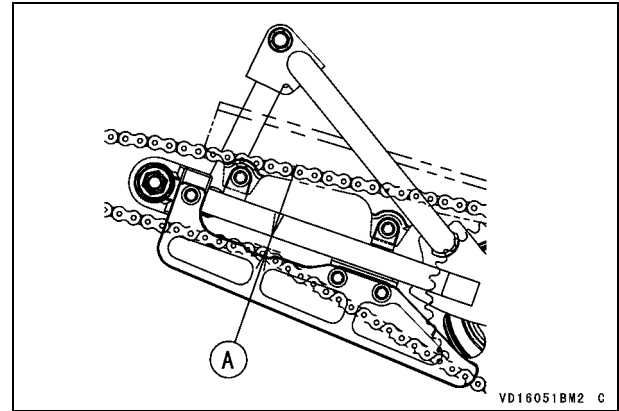
Chain Slack Inspection

- Set the motorcycle up on its side stand, then rotate the rear wheel to find the place where the chain is tightest (because it wears unevenly).
- Push up the drive chain in the middle of the lower chain run to measure the chain slack. The distance between the chain and the swingarm should be within the standard value.

Drive Chain Slack

| | |
|----------|---|
| Standard | KLX110C: 11 ~ 16 mm (0.4 ~ 0.6 in.) KLX110D: 8 ~ 13 mm (0.3 ~ 0.5 in.) |
|----------|---|

- Adjust the drive chain if its slack is out of specification.



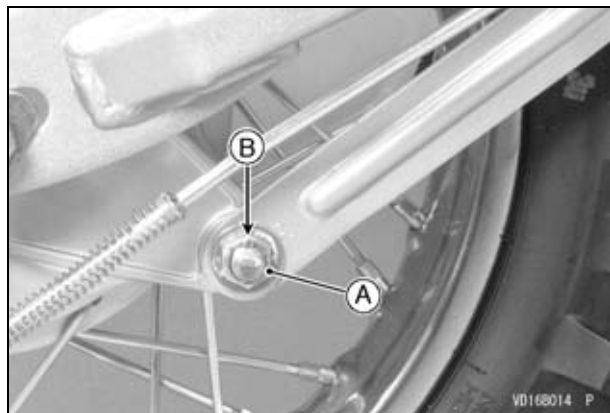
A. Chain Slack

- In addition to checking the slack, rotate the rear wheel to inspect the drive chain for damaged rollers, loose pins and links and the sprockets for unevenly or excessively worn and damaged teeth.
- If there are any such defects, replace the drive chain and/or the sprockets.

Chain Slack Adjustment

- Remove the cotter pin from the torque link nut, and loosen the torque link nut.

66 MAINTENANCE AND ADJUSTMENT

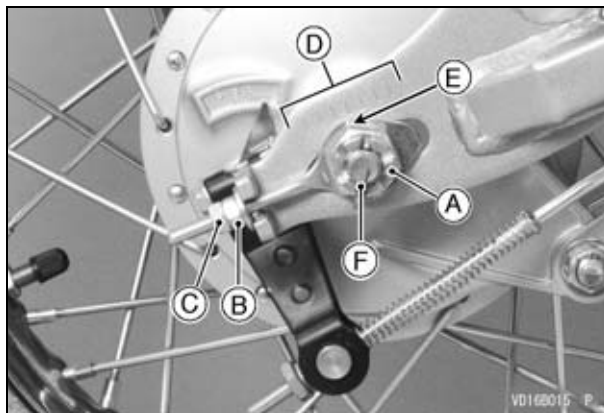


A. Torque Link Nut
B. Cotter Pin

- Remove the cotter pin from the rear axle nut.
- Loosen the rear axle nut and both chain adjuster locknuts.
- Turn both chain adjusting nuts evenly until the drive chain slack (measured between the chain and the swingarm) is within the standard value. For the rear wheel to be properly aligned, the notch of the left chain adjuster should align with the same swingarm mark that the notch of the right chain adjuster aligns with.

Drive Chain Slack

KLX110C: 11 ~ 16 mm (0.4 ~ 0.6 in.)
KLX110D: 8 ~ 13 mm (0.3 ~ 0.5 in.)



A. Rear Axle Nut
B. Adjusting Nut
C. Locknut
D. Marks
E. Notch
F. Cotter Pin

NOTE

- *Wheel alignment can also be checked using the straightedge or string method.*

⚠ WARNING

Misalignment of the wheel will result in abnormal wear, and may result in an unsafe riding condition. Align the rear wheel using the marks on the swingarm or measuring the distance between the center of the axle and swingarm pivot.

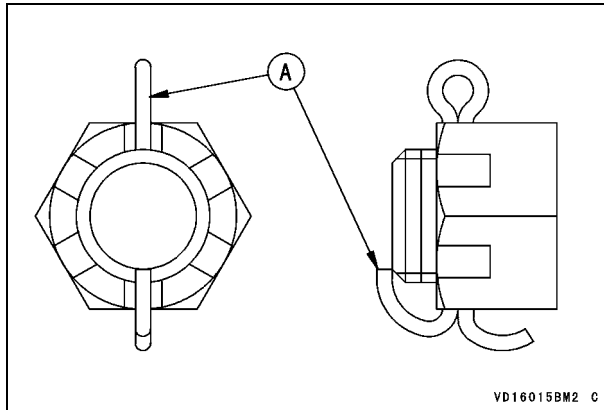
- Tighten both chain adjuster locknuts.
- Tighten the axle nut to the specified torque.

Tightening Torque

Rear Axle Nut:

64 N·m (6.5 kgf·m, 47 ft·lb)

- Rotate the wheel, measure the chain slack again at the tightest position, and readjust it if necessary.
- Install a new cotter pin through the axle nut and axle, and bend its ends.

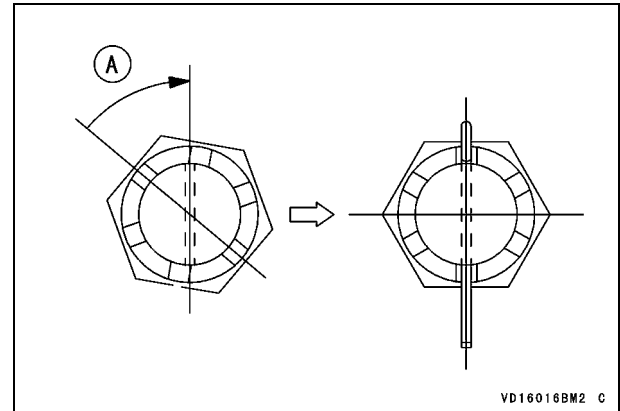


A. Cotter Pin

NOTE

- *When inserting the cotter pin, if the slots in the nut do not align with the cotter pin hole in the axle, tighten the nut clockwise up to the next alignment.*

- *It should be within 30 degrees.*
- *Loosen once and tighten again when the slot goes past the nearest hole.*



A. Turning Clockwise

- Tighten the torque link nut.

Tightening Torque

Torque Link Nut:

25 N·m (2.5 kgf·m, 18 ft·lb)

- Install a new cotter pin through the torque link bolt, and bend its ends.

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⚠ WARNING

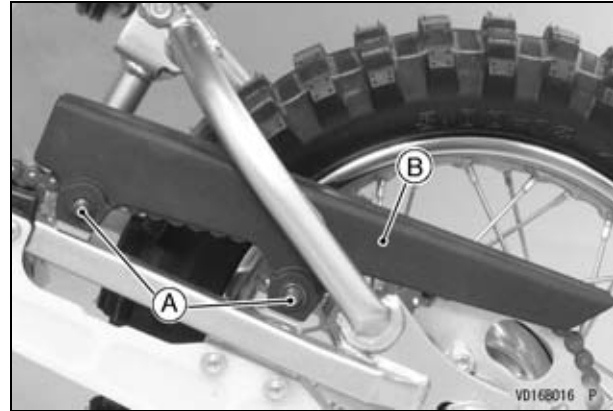
A loose axle nut and torque link nut can lead to an accident resulting in serious injury or death. Tighten the axle nut and torque link nut to the proper torque and install new cotter pins.

- Check the rear brake pedal play.

Chain Wear Inspection

When the chain has reached its wear limit (i.e., when it has stretched by 1.7% of its original length), it is no longer safe for use and should be replaced. Since it is impractical to measure the entire length of the chain, determine the degree of wear by measuring a 20-link section of the chain.

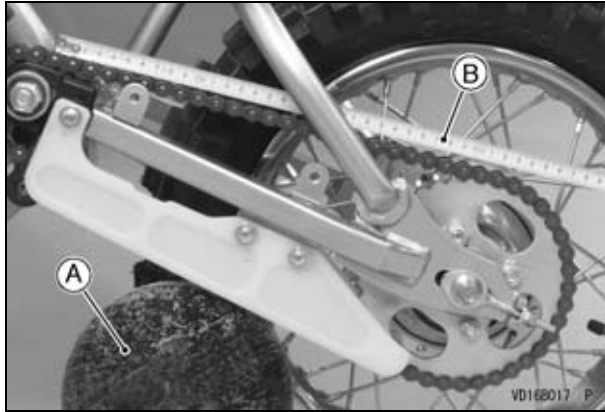
- Remove the bolts and chain cover.



A. Bolts

B. Chain Cover

- Tighten the chain either by using the chain adjusters or by hanging a 10 kg (22 lb) weight on the chain.
- Measure the 20-link length on a straight part of the chain from the center of the 1st pin to the center of the 21st pin. If the length exceeds the service limit, the chain should be replaced. Since over-worn sprockets will cause a new chain to wear faster, inspect both the engine and rear sprockets whenever the chain is replaced, and replace them if necessary.



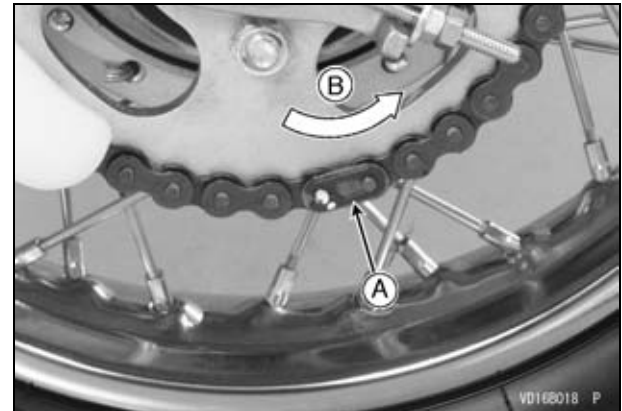
- A. Weight
- B. Tape Measure

Drive Chain 20-Link Length

| | |
|---------------|--------------------------------------|
| Standard | 254.0 ~ 254.6 mm (10.00 ~ 10.02 in.) |
| Service Limit | 259 mm (10.2 in.) |

NOTE

- The drive system was designed for use with a DAIDO DID 420DX 90-links chain. For maximum stretch resistance and safety, a genuine part must be used for replacement.
- To minimize any chance of the master link coming apart, the master link clip must be installed with the closed end of the “U” pointing in the direction of chain rotation.

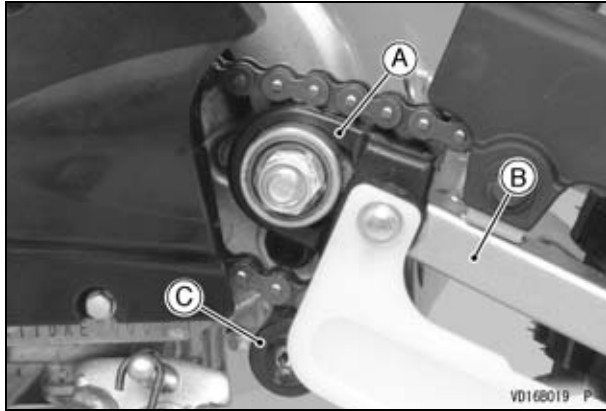


- A. Master Link Clip
- B. Direction of Chain Rotation

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Chain Slipper Wear Inspection

- Visually inspect the chain slipper on the swingarm and replace it if worn or damaged.

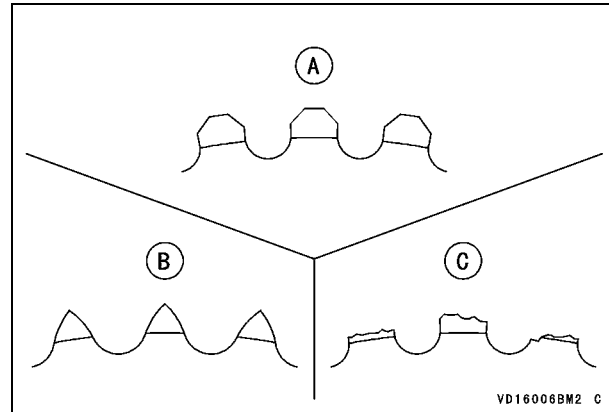


- A. Chain Slipper
- B. Swingarm
- C. Chain Slipper (KLX110D Model only)

Sprocket Wear Inspection

- Visually inspect the sprocket teeth and replace the sprocket if its teeth are worn or damaged.

Sprocket Teeth Wear



- A. Good Teeth
- B. Worn Teeth
- C. Damaged Teeth

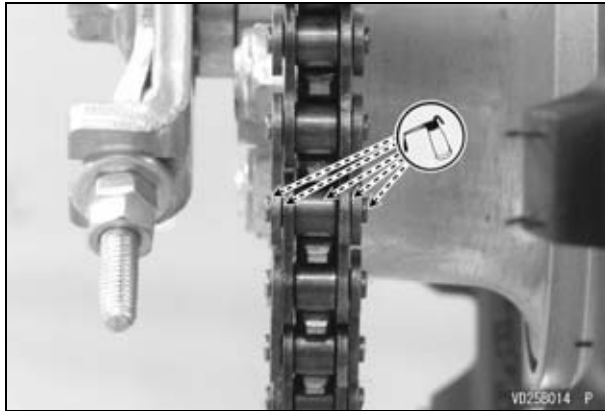
NOTE

○ Sprocket wear is exaggerated in the illustration.

Chain Lubrication

Lubrication of the drive chain is necessary after riding in the rain or mud, or any time the chain appears dry with a high quality lubricant for drive chains.

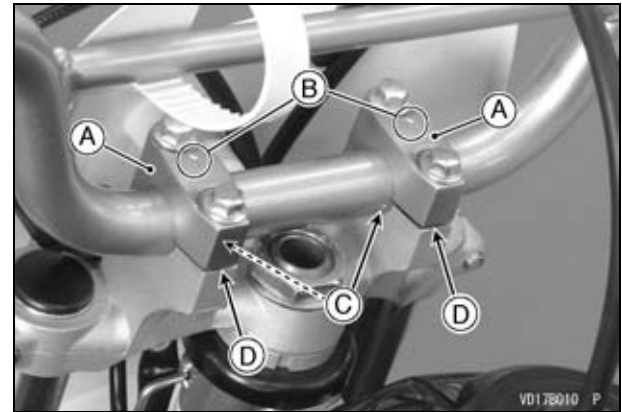
- Apply lubricant to the side of the rollers so that it will penetrate to the rollers and bushings.
- Wipe off any excess lubricant.



Handlebar

To keep the handlebar properly secured in place, it is necessary to install the handlebar clamps correctly.

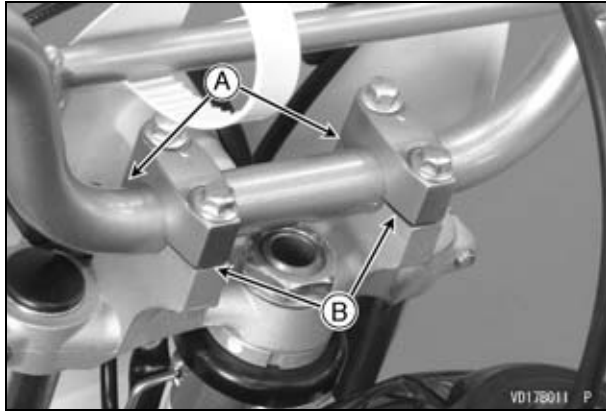
- Mount the handlebar clamps so that the arrows on the clamp face to the front.
- Align the gap at the rear with the punch mark on the handlebar.



- A. Handlebar Clamps
- B. Arrow Marks
- C. Punch Mark
- D. Gap

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- Tighten the handlebar clamp bolts, front first, then rear. If the handlebar clamps are correctly installed, there will be no gap at the front and an even gap at the rear of the clamps after the bolts torqued.



- A. No Gap
- B. Gap

Tightening Torque

Handlebar Clamp Bolts:
25 N·m (2.5 kgf·m, 18 ft·lb)

- Check the front brake for the proper brake effect, or no brake drag.

Brakes

Brake lining wear, drum wear, and cable stretch cause the brakes to go out of adjustment, increasing lever and pedal play, and decreasing braking effectiveness. Brake adjustment to compensate for this consists of correcting the cam lever angle, adjusting the front brake lever and rear brake pedal travel.

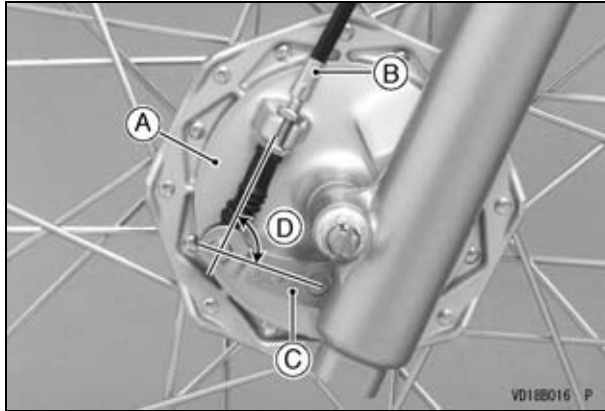
Brake Wear Inspection

Front

When the front brake is fully applied, the brake cam lever should come to an 80 ~ 90° angle with the brake cable. Otherwise, remove the cam lever, and then reinstall it in a new position on the shaft to obtain the proper angle. Adjust the brakes.

⚠ WARNING

Worn brake linings diminish brake performance, can damage brake components and lead to brake failure or cause the brake to lock, resulting in a crash that may cause serious injury or death. If the front brake lever adjustment cannot be moved to provide full braking action, inspect the brake linings for excessive wear before moving the front brake cam lever. Replace excessively worn brake linings. Inspection and replacement of any brake components should be performed by an authorized Kawasaki dealer.



- A. Front Brake Panel
- B. Brake Cable
- C. Cam Lever
- D. 80 ~ 90°

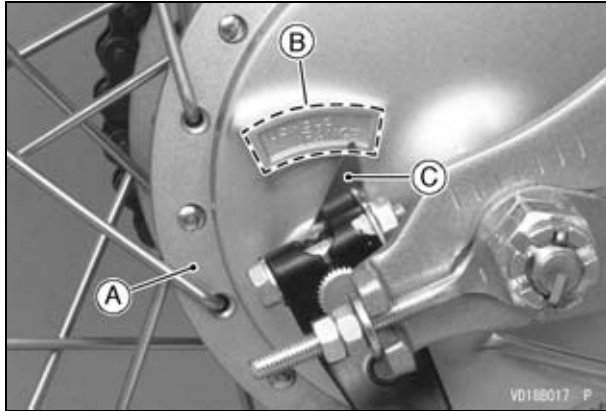
⚠ WARNING

A brake cam lever angle greater than 90 degrees reduces braking effectiveness which can cause a crash resulting in serious injury or death. Whenever the cam lever angle is adjusted, check for brake drag and proper pedal operation. If brake effectiveness is questionable, disassemble and inspect all internal brake parts. Worn brake parts diminish brake performance, can damage brake components and lead to brake failure or cause the brake to lock, resulting in a crash that may cause serious injury or death. Inspection and replacement of any brake components should be performed by an authorized Kawasaki dealer.

Rear

On the rear brake panel is a brake lining wear indicator. If the brake lining wear indicator does not point within the USABLE RANGE when the brake is fully applied, the brake shoe linings have worn past the service limit. In this case, the brake shoes must be replaced and the drum and other brake parts examined by an authorized Kawasaki dealer.

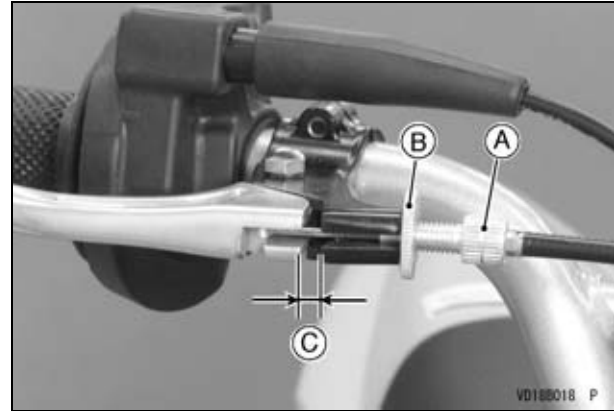
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- A. Rear Brake Panel
- B. USABLE RANGE
- C. Brake Lining Wear Indicator

Front Brake Lever Play Inspection

- Slide the front brake lever dust cover back.
- Check that the brake lever has 4 ~ 5 mm (0.16 ~ 0.20 in.) of play when the brake is lightly applied.



- A. Locknut
- B. Adjuster
- C. 4 ~ 5 mm (0.16 ~ 0.20 in.)

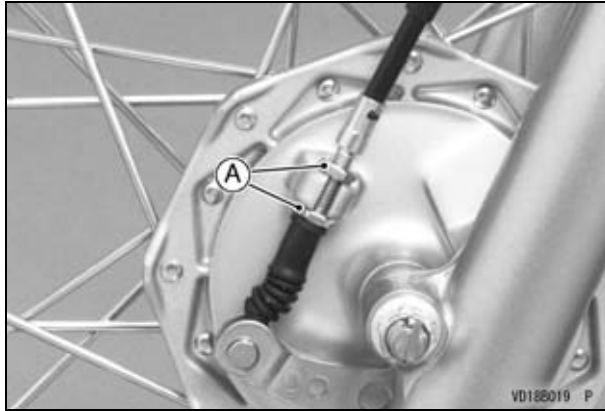
- Rotate the wheel to check for brake drag.
- Operate the lever a few times to see that it returns to its rest position immediately upon release.
- Check braking effectiveness.
- If the lever has improper play, adjust it.

⚠ WARNING

An improperly adjusted brake could drag and cause the brake to overheat, damaging the brake assembly and possibly locking the wheel, resulting in loss of control. Always maintain the proper brake adjustment.

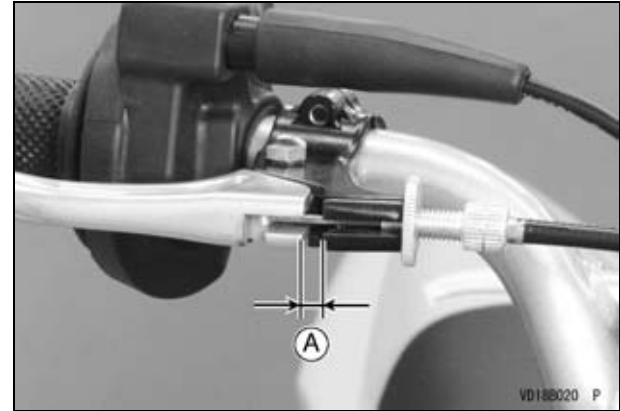
Front Brake Lever Play Adjustment

- Slide the front brake lever dust cover back.
- Loosen the locknut at the front brake lever, screw the adjuster fully in, and tighten the locknut.
- Loosen the nuts at the lower end of the front brake cable.



A. Nuts

- Turn the nuts at the lower end of the front brake cable so that the brake lever play has 4 ~ 5 mm (0.16 ~ 0.20 in.), and tighten the nuts.



A. 4 ~ 5 mm (0.16 ~ 0.20 in.)

- If sufficient adjustment cannot be made with the adjuster, complete the adjustment with the adjuster at the brake lever, and then tighten the locknut.
- Check that there is no brake drag.
- Check braking effectiveness.
- Slide the dust cover back into place.

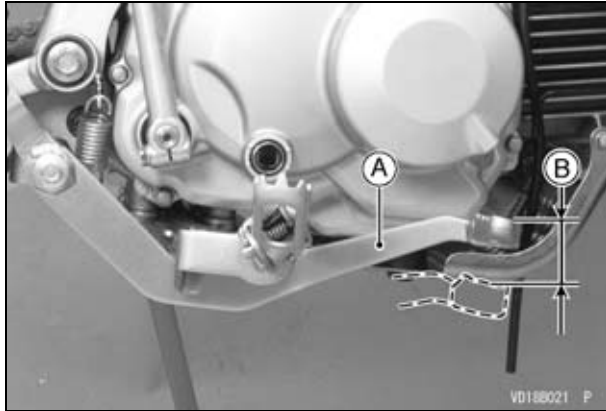
NOTE

- For minor corrections, use the adjuster at the front brake lever.
- If the brake lever adjustment cannot be made with the adjuster at the brake lever or at the brake panel, move the front brake cam lever to a new position on the brake camshaft.

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Rear Brake Pedal Play Inspection

- The brake pedal play should have 20 ~ 30 mm (0.8 ~ 1.2 in.) when the pedal is pushed down lightly by hand.



- A. Rear Brake Pedal**
- B. 20 ~ 30 mm (0.8 ~ 1.2 in.)**

- Rotate the wheel to check for brake drag.
- Operate the pedal a few times to see that it returns to its rest position immediately upon release.
- Check braking effectiveness.
- If the pedal has improper play, adjust it.

⚠ WARNING

An improperly adjusted brake could drag and cause the brake to overheat, damaging the brake assembly and possibly locking the wheel, resulting in loss of control. Always maintain the proper brake adjustment.

Rear Brake Pedal Play Adjustment

- Turn the adjusting nut at the brake rod so that the pedal play has 20 ~ 30 mm (0.8 ~ 1.2 in.).



- A. Adjusting Nut**

- Check that there is no brake drag.
- Check braking effectiveness.

Steering

The steering should always be kept adjusted so that the handlebar will turn freely but not have excessive play. The steering play must be checked in accordance with the Periodic Maintenance Chart.

Steering Inspection

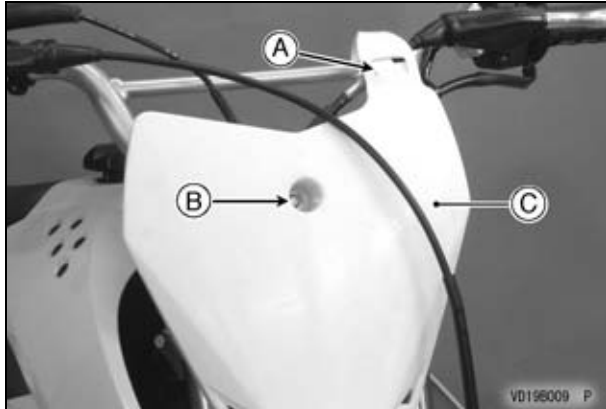
- To check the steering adjustment, raise the front wheel off the ground using a jack (special tool: 57001-1238).
- Push the handlebar lightly to either side. If the handlebar continues moving under its own momentum, the steering is not too tight.
- Squatting in front of the motorcycle, grasp the lower ends of the front fork at the axle, and push and rock the front fork back and forth as shown in the figure. If play is felt, the steering is too loose and needs to be adjusted.



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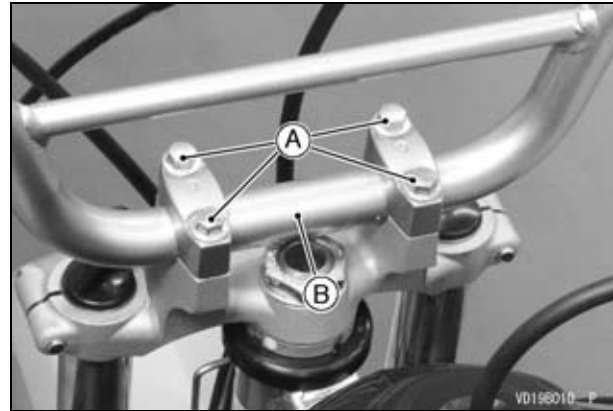
Steering Adjustment

- Raise the front wheel off the ground using a jack (special tool: 57001-1238).
- Unlock the clamp of the number plate.
- Remove the bolt.
- Clear the holes and remove the number plate.



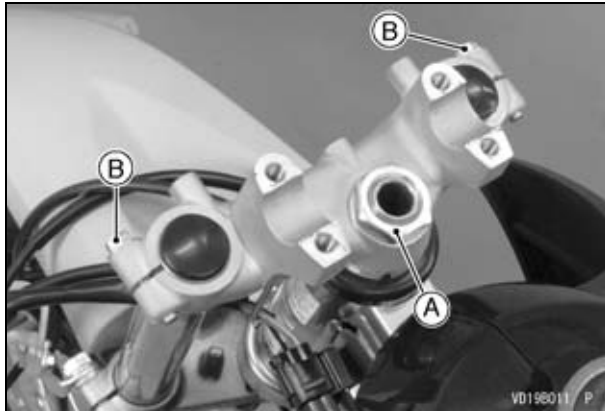
- A. Clamp**
- B. Bolt**
- C. Number Plate**

- Remove the handlebar clamp bolts and take out the handlebar.



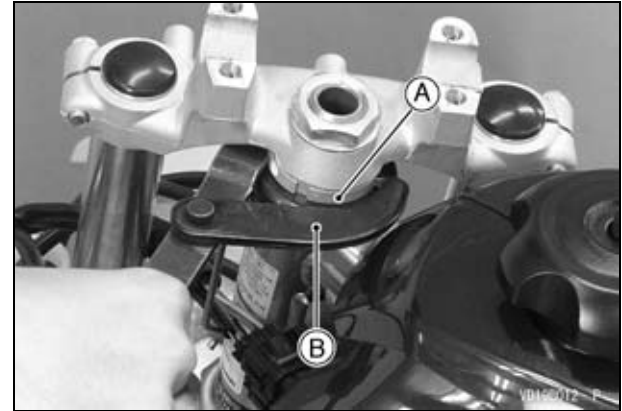
- A. Handlebar Clamp Bolts**
- B. Handlebar**

- Loosen the steering stem head nut and left and right front fork clamp bolts (upper).



A. Steering Stem Head Nut
B. Front Fork Clamp Bolts (Upper)

- Turn the steering stem locknut with a stem nut wrench (special tool: 57001-1100) to obtain the proper adjustment.



A. Steering Stem Locknut
B. Stem Nut Wrench (Special Tool: 57001-1100)

- Apply the specified torques to the steering stem head nut and front fork clamp bolts (upper).

Tightening Torque

| |
|--|
| Steering Stem Head Nut: 44 N·m (4.5 kgf·m, 32 ft·lb) Front Fork Clamp Bolts (Upper): 20 N·m (2.0 kgf·m, 15 ft·lb) |
|--|

- Install the handlebar (see Handlebar section), and check the steering again and readjust it if necessary.
- Check the front brake for the proper brake effect, or no brake drag.
- Install the removed parts.

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Front Suspension

The front fork oil change or the front fork inspection/cleaning should be done in accordance with the Periodic Maintenance Chart.

Front Fork Inspection

NOTICE

Sticking muds or dusts on the sliding surface of the front fork could damage to the oil seal, leading to an oil leak. Clean the sliding surface after each ride.

- Holding the brake lever, pump the front fork back and forth manually to check for smooth operation.
- Visually inspect the front fork for oil leakage, scoring or scratches on the outer surface of the inner tube.
- If necessary, repair or replace by an authorized Kawasaki dealer.



A. Inner Tube

NOTICE

If the inner tube is badly bent or creased, replace it. Excessive bending, followed by subsequent straitening, can weaken the inner tube.

Rear Suspension

The rear shock absorber inspection should be done in accordance with the Periodic Maintenance Chart.

Rear Shock Absorber Inspection

| |
|---------------|
| NOTICE |
|---------------|

| |
|---|
| <p>Sticking muds or dusts on the sliding surface of the rear shock absorber could damage to the oil seal, leading to an oil leak. Clean the sliding surface after each ride.</p> |
|---|

- Pump the seat down and up by 4 or 5 times, and inspect the smooth stroke.
- If it does not smoothly or noise is found, inspect the oil leak and rear shock absorber mounting.
- Visually inspect the rear shock absorber for oil leakage.
- If necessary, repair or replace by an authorized Kawasaki dealer.

Wheels

Tire Air Pressure

Tire air pressure affects traction, handling, and tire life. Adjust the tire air pressure to suit track conditions and rider preference, but keep it close within the recommended range.

- To check the tire air pressure, remove the air valve cap, and make sure to tighten the cap securely after checking the tire pressure.
- Reduce the tire air pressure to increase the tire tread surface on the ground when riding on a wet, muddy, sandy or slippery track.
- Increase the tire air pressure to prevent damage or punctures (though the tires will skid more easily) when riding on a pebbly or hard track.

Tire Air Pressure Adjustable Range

| |
|--|
| 80 ~ 100 kPa (0.8 ~ 1.0 kgf/cm ² , 12 ~ 14 psi) |
|--|

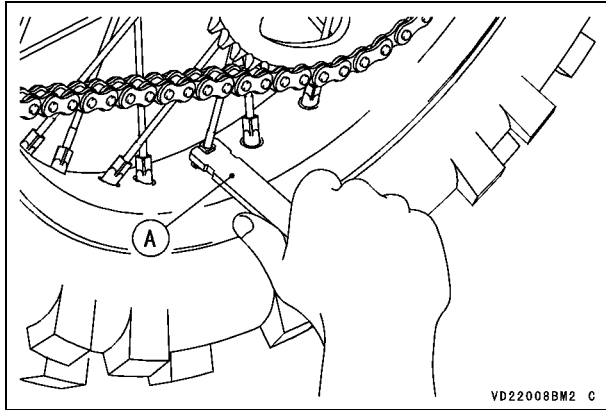
NOTE

- *Tire air pressure should be checked when the tires are cold, before you ride the motorcycle.*

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Spokes and Rims

The spokes on both wheels must all be securely and evenly tightened and not be allowed to loosen. Unevenly tightened or loose spokes will cause the rim to warp, the nipples and spokes to fatigue more quickly, and the spokes to break.



A. Spoke Wrench

Rim Runout

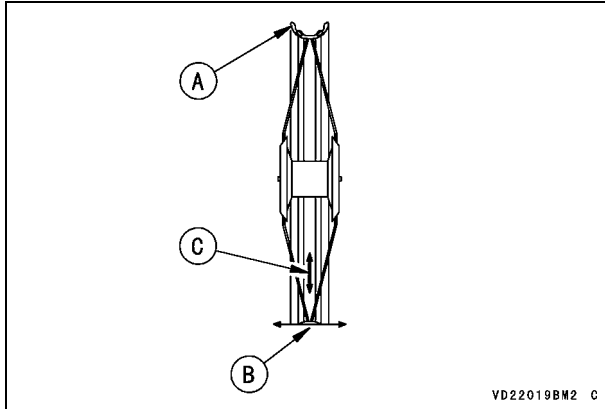
Set up a dial gauge on the side of the rim and rotate the wheel to measure its axial runout. The difference between the highest and lowest readings is the amount of runout.

- Set up the dial gauge on the inner circumference of the rim and rotate the wheel to measure its radial runout. The difference between the highest and lowest readings is the amount of runout.
- A certain amount of rim warpage (runout) can be corrected by recentering the rim, that is, by loosening some spokes and tightening other to change the position of certain portions of the rim. If the rim is badly bent, however, it should be replaced.

NOTE

○ The welding spot of the rim may show excessive runout. Disregard this when measuring rim runout.

Rim Runout



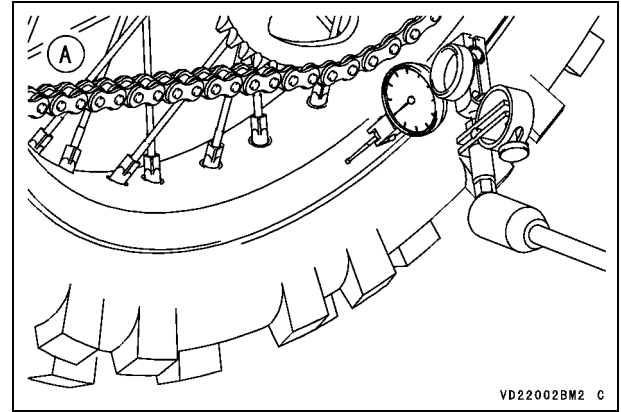
VD22019BM2 C

- A. Rim
- B. Axial Runout
- C. Radial Runout

Rim Runout Maximum Limit

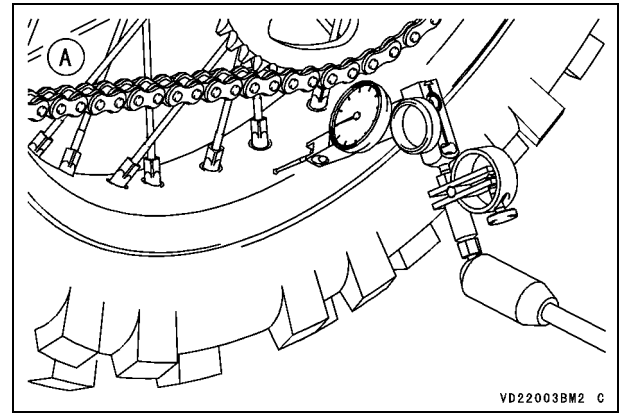
| | |
|--------|------------------------|
| Axial | *TIR 2.0 mm (0.08 in.) |
| Radial | |

*: Total Indicator Reading



VD22002BM2 C

A. Axial Rim Runout Measurement



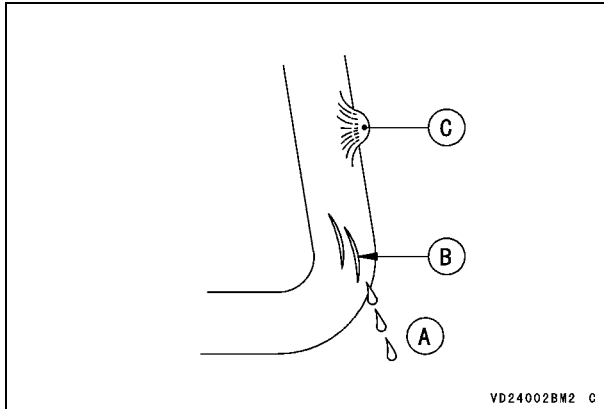
VD22003BM2 C

A. Radial Rim Runout Measurement

Hoses Inspection

Check the fuel hose for cracks or deterioration, and the connections for looseness in accordance with the Periodic Maintenance Chart.

- Inspect the fuel hose and fittings for deterioration, cracks and signs of leakage by bending or twisting the hose.
- If damaged, replace the hose.



- A. Leak**
- B. Cracks**
- C. Bulges**

- Check that the hose is securely connected and clamps are held correctly.

Battery

The battery installed in this motorcycle is a sealed type, so it is not necessary to check the battery electrolyte level or add distilled water.

The sealing strip should not be pulled off once the specified electrolyte has been installed in the battery for initial service.

However, in order to maximize battery life and ensure that it will provide the power needed to start the motorcycle you must properly maintain the battery's charge. When used regularly, the charging system in the motorcycle helps keep the battery fully charged. If your motorcycle is only used occasionally or for short periods of time, the battery is more likely to discharge.

Due to their internal composition, batteries continually self discharge. The discharge rate depends on the type of battery and ambient temperature. As temperature rises, so does the discharge rate. Every 15°C (59°F) doubles the rate.

| Self-discharge | | |
|----------------|---|--------------|
| Temperature | Approx. number of days from 100% charged to 100% discharged | |
| | Lead-Antimony | Lead-Calcium |
| | Battery | Battery |
| 40°C (104°F) | 100 Days | 300 Days |
| 25°C (77°F) | 200 Days | 600 Days |
| 0°C (32°F) | 550 Days | 950 Days |

| Current Drain | | |
|--------------------|--|---|
| Discharging Ampere | Days from 100% charged to 50% discharged | Days from 100% charged to 100% discharged |
| 7 mA | 60 Days | 119 Days |
| 10 mA | 42 Days | 83 Days |
| 15 mA | 28 Days | 56 Days |
| 20 mA | 21 Days | 42 Days |
| 30 mA | 14 Days | 28 Days |

In extremely cold weather the fluid in an inadequately charged battery can easily freeze, which can crack the case and buckle the plates. A fully charged battery can withstand sub-freezing temperature with no damage.

Battery Sulfation -

A common cause of battery failure is sulfation. Sulfation occurs when the battery is left in a discharged condition for an extended time. Sulfate is a normal by product of the chemical reactions within a battery. But when continuous discharge allows the sulfate to crystallize in the cells, the battery plates become permanently damaged and will not hold a charge. Battery failure due to sulfation is not warrantable.

Battery Maintenance -

It is the owner's responsibility to keep the battery fully charged. Failure to do so can lead to battery failure and leave you stranded.

If you are riding your vehicle infrequently, inspect the battery voltage weekly using a voltmeter. If it drops below 12.6 volts, the battery should be charged using an appropriate charger (check with a Kawasaki dealer). If you will not be using the motorcycle for longer than two weeks, the battery should be charged using an appropriate charger. Do not use an automotive-type quick charger that may overcharge the battery and damage it.

NOTE

○ *Leaving the battery connected causes the electrical components to make the battery discharged, resulting the over discharge of the battery. In this case, the repair or replacement of the battery is not included in the warranty. If you do not drive for four weeks or more, disconnect the battery from the vehicle.*

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Kawasaki-recommended chargers are:

Battery Mate 150-9
OptiMate 4
Yuasa MB-2040/2060
Christie C10122S

If the above chargers are not available, use equivalent one.

For more details, ask a Kawasaki dealer.

Battery Charging -

- Remove the battery from the motorcycle (see Battery Removal).
- Attach the leads from the charger and charge the battery at a rate (amperage×hours) that is indicated on the battery. If it is not possible to read the rate, charge the battery at an amperage that is about 1/10th of the battery capacity.
- The charger will keep the battery fully charged until you are ready to reinstall the battery in the motorcycle (see Battery Installation).

NOTICE

**Never remove the sealing strip, or the battery can be damaged.
Do not install a conventional battery in this motorcycle, or the electrical system cannot work properly.**

NOTE

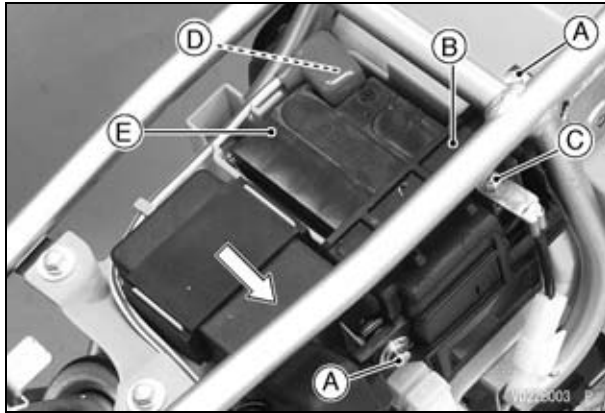
- *If you charge the sealed battery, never fail to observe the instructions shown in the label on the battery.*

⚠ WARNING

Lead is a toxic substance. Battery posts, terminals and related accessories contain lead and lead compounds. Wash hands after handling.

Battery Removal

- Remove the side covers and seat (see Air Cleaner section).
- Remove the bolts and battery holder.
- Pull out the battery a little.
- Disconnect the cables from the battery, first from the (−) terminal and then the (+) terminal.
- Take the battery out.



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

- Clean the battery using a solution of baking soda and water. Be sure that the cable connections are clean.

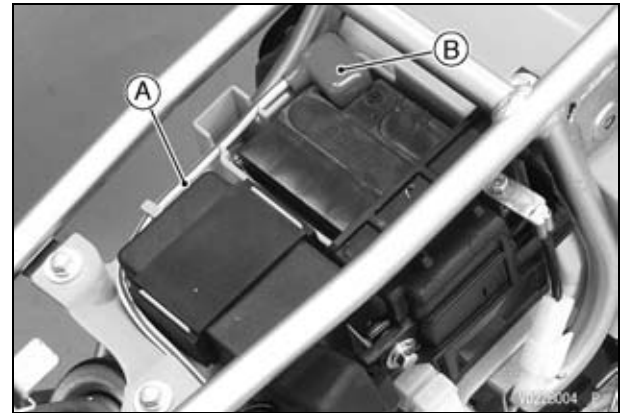
Battery Installation

- Place the battery.
- Install the battery holder and tighten the bolts.
- Run the white/red cable as shown in the figure.
- Connect the white/red cable to the (+) terminal, and then connect the black cable to the (-) terminal.

NOTICE

Installing the (-) cable to the (+) terminal of the battery or the (+) cable to the (-) terminal of the battery can seriously damaged the electrical system.

- Put a light coat of grease on the terminals to prevent corrosion.
- Cover the (+) terminal with its protective cap.



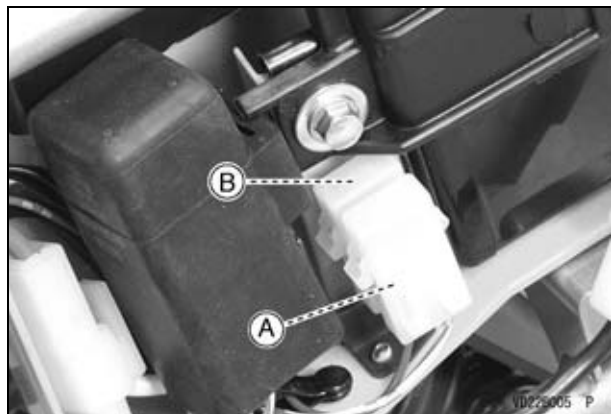
- A. White/Red Cable
- B. Protective Cap

- Reinstall the removed parts.

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Fuse

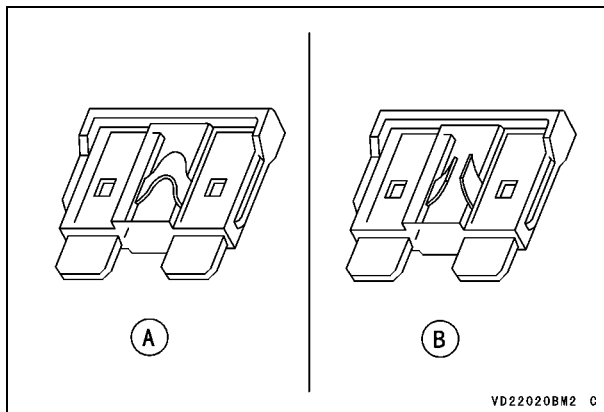
The fuse and spare fuse are mounted behind the left side cover. If a fuse fails during operation, inspect the electrical system to determine the cause, and then replace it with a new fuse of proper amperage.



- A. Fuse
- B. Spare Fuse

⚠ WARNING

Substituting fuses can cause wiring to overheat, catch fire and/or fail. Do not use any substitute for the standard fuse. Replace the blown fuse with a new one of the correct capacity, as specified on the fuse.

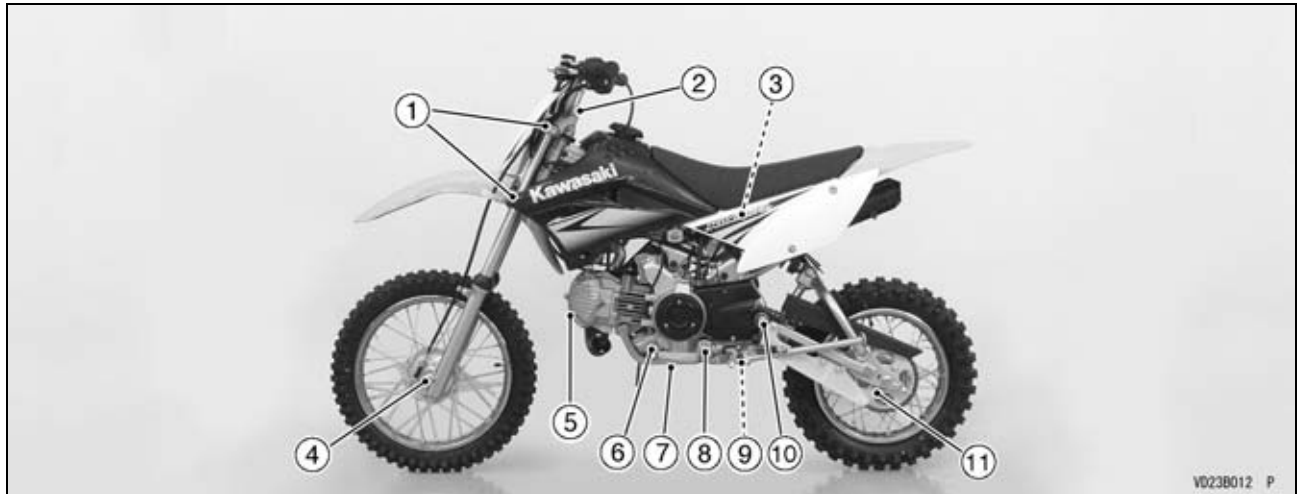


- A. Normal
- B. Failed

Tightening Torques of Nuts and Bolts

Location of nuts and bolts

Before the first ride of each day of operation, check the tightness of the nuts and bolts shown below. Check also that all cotter pins are in place and in good condition.



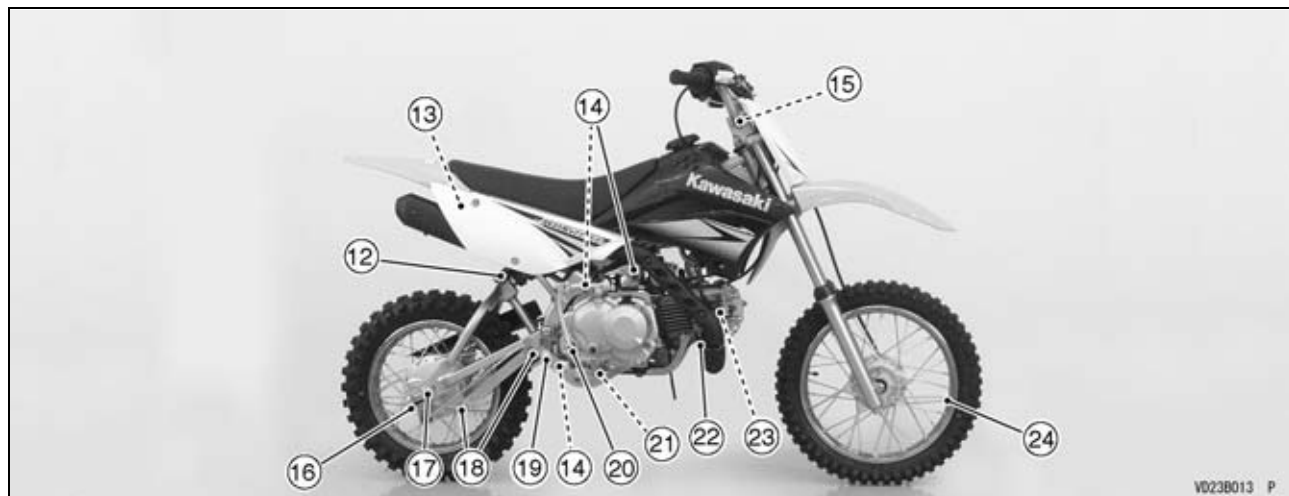
V023B012 P

- 1. Front Fork Clamp Bolts
- 2. Handlebar Clamp Bolts
- 3. Rear Shock Absorber Bolt and Nut (Upper)

- 4. Front Axle Nut
- 5. Cylinder Head Nuts
- 6. Oil Filter Cap Bolts
- 7. Engine Oil Drain Bolt

- 8. Shift Pedal Bolt
- 9. Side Stand Bolt and Nut
- 10. Swingarm Pivot Shaft Nut
- 11. Rear Sprocket Nuts

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- 12. Rear Shock Absorber Nut (Lower)
- 13. Muffler Body Mounting Bolt and Nut
- 14. Engine Mounting Nuts

- 15. Steering Stem Head Nut
- 16. Brake Cam Lever Bolt
- 17. Rear Axle Nut
- 18. Torque Link Nuts
- 19. Brake Pedal Bolt

- 20. Kick Pedal Bolt
- 21. Footpeg Mounting Bolts
- 22. Exhaust Pipe Holder Nuts
- 23. Spark Plug
- 24. Spoke Nipples

Torque Table

Tighten all nuts and bolts to the proper torque using an accurate torque wrench. An insufficiently tightened nut or bolt may become damaged or fall out, possibly resulting in damage to the motorcycle and injury to the rider. An overtightened nut or bolt may become damaged, broken, or fall out.

| Fastener | | N·m | kgf·m | ft·lb | Remarks |
|--------------------------------|--|------------|--------------|--------------|----------------|
| ENGINE | Cylinder Head Nuts | 22 | 2.2 | 16 | S |
| | Clutch Adjusting Screw Locknut (KLX110C Model) | 19 | 1.9 | 14 | |
| | Engine Oil Drain Bolt | 29 | 3.0 | 21 | |
| | Oil Filter Cap Bolts | 5.2 | 0.53 | 46 in·lb | |
| | Kick Pedal Bolt | 8.8 | 0.90 | 78 in·lb | |
| | Shift Pedal Bolt | 5.2 | 0.53 | 46 in·lb | |
| | Spark Plug | 13 | 1.3 | 115 in·lb | |
| CHASSIS | Exhaust Pipe Holder Nuts | 16 | 1.6 | 12 | |
| | Muffler Body Mounting Bolt | 9.8 | 1.0 | 87 in·lb | |
| | Muffler Body Mounting Nut | 30 | 3.1 | 22 | R |
| | Engine Mounting Nuts | 54 | 5.5 | 40 | R, S |
| | Front Axle Nut | 44 | 4.5 | 32 | R |
| | Rear Axle Nut | 64 | 6.5 | 47 | |
| | Spoke Nipples | 4.0 | 0.41 | 35 in·lb | |
| | Rear Sprocket Nuts | 44 | 4.5 | 32 | R |
| | Brake Cam Lever Bolt | 7.0 | 0.71 | 62 in·lb | |
| | Brake Pedal Bolt | 8.8 | 0.90 | 78 in·lb | |
| | Front Fork Clamp Bolts (Lower) | 30 | 3.1 | 22 | |
| Front Fork Clamp Bolts (Upper) | 20 | 2.0 | 15 | | |

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| Fastener | | N·m | kgf·m | ft·lb | Remarks |
|----------------|--|-----|-------|----------|---------|
| CHASSIS | Rear Shock Absorber Bolt and Nut (Upper) | 39 | 4.0 | 29 | R |
| | Rear Shock Absorber Nut (Lower) | 39 | 4.0 | 29 | R |
| | Swingarm Pivot Shaft Nut | 78 | 8.0 | 58 | R |
| | Torque Link Nuts | 25 | 2.5 | 18 | |
| | Handlebar Clamp Bolts | 25 | 2.5 | 18 | |
| | Steering Stem Head Nut | 44 | 4.5 | 32 | |
| | Footpeg Mounting Bolts | 25 | 2.5 | 18 | |
| | Side Stand Bolt | 9.8 | 1.0 | 87 in·lb | |
| | Side Stand Nut | 29 | 3.0 | 21 | R |

R: Replacement Parts

S: Follow the specified tightening sequence.

Cleaning Your Motorcycle

General Precautions

Frequent and proper care of your Kawasaki motorcycle will enhance its appearance, optimize overall performance, and extend its useful life. Covering your motorcycle with a high quality, breathable motorcycle cover will help protect its finish from harmful UV rays, pollutants, and reduce the amount of dust reaching its surfaces.

 **WARNING**

Build-up of debris or flammable material in and around the vehicle chassis, engine, and exhaust can cause mechanical problems and increase the risk of fire. When operating the vehicle in conditions that allow debris or flammable material to collect in and around the vehicle, inspect the engine, electrical component and exhaust areas frequently. If debris or flammable materials have collected, park the vehicle outside and stop the engine. Allow the engine to cool, then remove any collected debris. Do not park or store the vehicle in an enclosed space prior to inspecting for build-up of debris or flammable materials.

- Be sure the engine and exhaust are cool before washing.
- Avoid applying degreaser to seals, and tires.

- Always use non-abrasive wax and cleaner/polisher.
- Avoid all harsh chemicals, solvents, detergents, and household cleaning products such as ammonia-based window cleaners.
- Gasoline, brake fluid, and coolant will damage the finish of painted and plastic surfaces: wash them off immediately.
- Avoid wire brushes, steel wool, and all other abrasive pads or brushes.
- Use care when washing the plastic parts as they can easily be scratched.
- Avoid using pressure washers; water can penetrate seals and electrical components and damage your motorcycle.
- Avoid spraying water in delicate areas such as in air intakes, carburetor, brake components, electrical components, muffler outlets, and fuel tank openings.

Washing Your Motorcycle

- Rinse your bike with cold water from a garden hose to remove any loose dirt.
- Mix a mild neutral detergent (designed for motorcycles or automobiles) and water in a bucket. Use a soft cloth or sponge to wash your motorcycle. If needed, use a mild degreaser to remove any oil or grease which build up.
- After washing, rinse your motorcycle thoroughly with clean water to remove any residue (residue from the detergent can damage parts of your motorcycle).

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- Use a soft cloth to dry your motorcycle. As you dry, inspect your motorcycle for chips and scratches. Do not let the water air dry as this can damage the painted surfaces.
- Start the engine and let it idle for several minutes. The heat from the engine will help dry moist areas.
- Carefully ride your motorcycle at a slow speed and apply the brakes several times. This helps the brakes dry and restores its normal operating performance.
- Lubricate the drive chain to prevent rusting.

NOTE

- *After riding in an area where the roads are salted or near the ocean, immediately wash your motorcycle with cold water. Do not use warm water as it accelerates the chemical reaction of the salt. After drying, apply a corrosion protection spray on all metal and chrome surfaces to prevent corrosion.*

Painted Surfaces

After washing your motorcycle, coat painted surfaces, both metal and plastic, with a commercially available motorcycle/automotive wax. Wax should be applied once every three months or as conditions require. Avoid surfaces with “satin” or “flat” finishes. Always use non-abrasive products and apply them according to the instructions on the container.

Plastic Parts

After washing use a soft cloth to gently dry plastic parts. When dry, treat the non-painted plastic parts with an approved plastic cleaner/polisher product.

NOTICE

Plastic parts may deteriorate and break if they come in contact with chemical substances or household cleaning products such as gasoline, brake fluid, window cleaners, thread-locking agents, or other harsh chemicals. If a plastic part comes in contact with any harsh chemical substance, wash it off immediately with water and a mild neutral detergent, and then inspect for damage. Avoid using abrasive pads or brushes to clean plastic parts, as they will damage the part's finish.

Chrome and Aluminum

Chrome and uncoated aluminum parts can be treated with a chrome/aluminum polish. Coated aluminum should be washed with a mild neutral detergent and finished with a spray polish. Aluminum wheels, both painted and unpainted can be cleaned with special non-acid based wheel spray cleaners.

Leather, Vinyl, and Rubber

If your motorcycle has leather accessories, special care must be taken. Use a leather cleaner/treatment to clean and care for leather accessories. Washing leather parts with detergent and water will damage them, shortening their life.

Vinyl parts should be washed with the rest of the motorcycle, then treated with a vinyl treatment.

The sidewalls of tires and other rubber components should be treated with a rubber protectant to help prolong their useful life.

⚠ WARNING

Rubber protectants can be slippery and, if used on the tread area, cause loss of traction resulting in accident causing injury or death. Do not apply rubber protectant to any tread area.

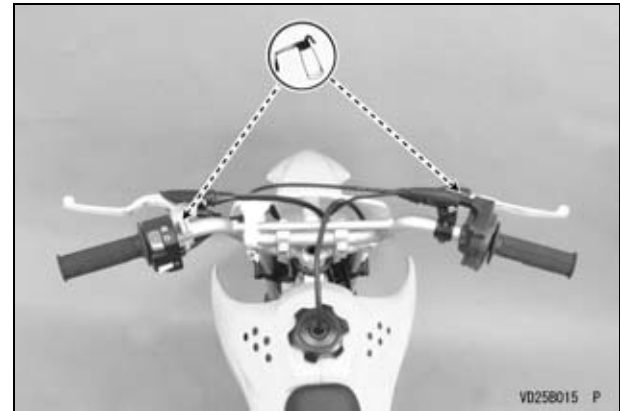
Lubrication

Lubricate the areas shown in the illustrations of this section with either motor oil or regular grease, in accordance with the Periodic Maintenance Chart and whenever the vehicle has been operated under wet or rainy conditions, especially after using a high-pressure spray washer. Before lubricating a part, clean off any rust with rust remover and wipe off any grease, oil, dirt, or grime.

General Lubrication

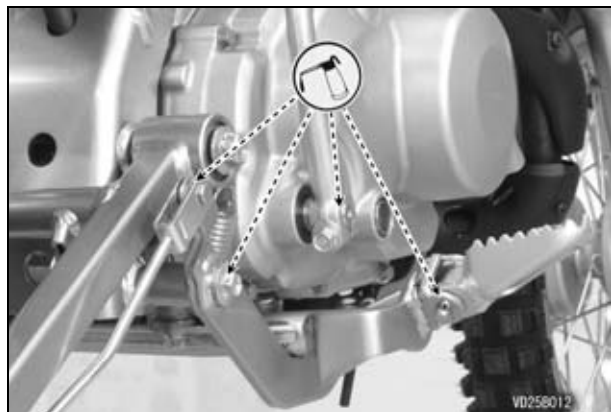
Apply motor oil to the following pivots:

- Clutch Lever (KLX110D Model)
- Front Brake Lever



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- Rear Brake Pedal
- Rear Brake Rod Joint
- Kick Pedal
- Footpeg



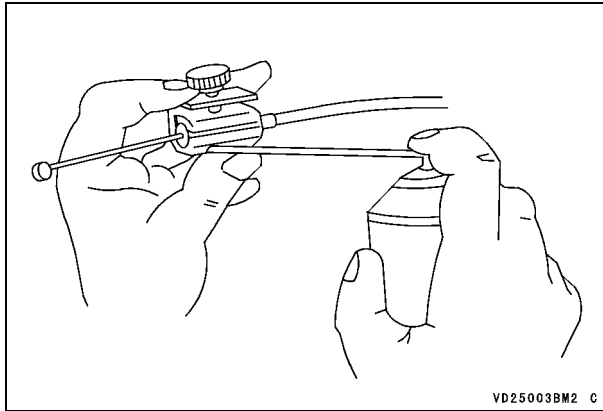
- Shift Pedal
- Side Stand



Apply an aerosol cable lubricant with a pressure lubricator on all cables:

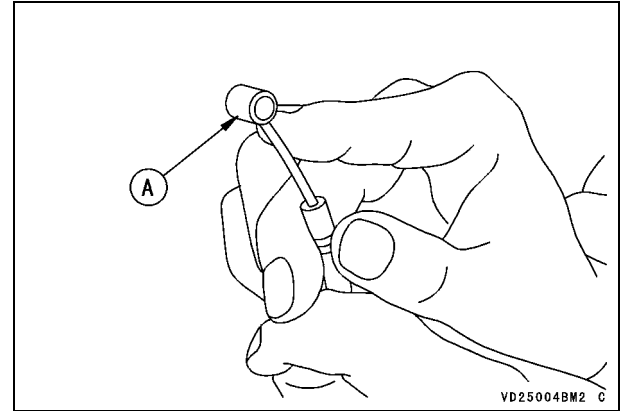
- Clutch Cable (KLX110D Model)
- Throttle Cable

Cable Lubrication



Apply grease to the following points:

- Clutch Inner Cable Upper End (KLX110D Model)
- Throttle Inner Cable Upper End



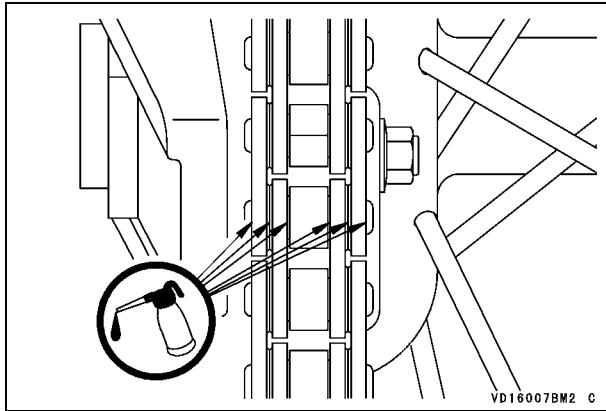
A. Upper End

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Chain Lubrication

Lubrication of the drive chain is necessary after riding in the rain or mud, or any time the chain appears dry with a high quality lubricant for drive chains.

- Apply lubricant to the side of the rollers so that it will penetrate to the rollers and bushings.
- Wipe off any excess lubricant.



TROUBLESHOOTING GUIDE

NOTE

○ *This troubleshooting guide is not exhaustive and does not give every possible cause for each problem listed. It is meant simply as a quick guide to assist you in troubleshooting for some of the more common difficulties.*

Starting failure or difficulties -

Starter motor does not rotating:

- Engine stop switch not \odot position
- Starter lockout switch (KLX110D model only) or gear position switch trouble
- Starter motor trouble
- Battery voltage low
- Starter relay not contacting or operating
- Starter button not contacting
- Starter system wiring shorted or open
- Engine stop switch trouble
- 10 A fuse blown

Starter motor rotating but engine does not turn over:

- Starter clutch trouble
- Starter idle gear trouble

Engine does not turn over:

- Valve seized
- Cylinder or piston seized
- Crankshaft seized
- Connecting rod small end seized
- Connecting rod big end seized
- Camshaft seized
- Transmission gear or bearing seized
- Kick shaft return spring broken
- Kick ratchet gear not engaging

Fuel does not flow:

- No fuel in tank
- Fuel tap turned off
- Fuel tank cap air vent obstructed
- Fuel tap clogged
- Fuel line clogged
- Float valve clogged

Engine flooded:

- Fuel level too high
- Float valve worn or stuck open
- Wrong starting technique (when the engine is flooded, kick with the throttle fully open to allow more air to reach the engine.)

Spark missing or weak:

- Engine stop switch turned off
- Spark plug dirty, broken, or gap improperly adjusted

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- Spark plug cap or high-tension wiring defective
- Spark plug cap not contacting properly
- Spark plug type incorrect
- Crankshaft sensor defective
- Igniter defective
- Ignition coil defective
- Engine stop switch wiring defective
- Flywheel magneto damaged
- Gear position switch defective
- Wiring shorted or interrupted

Fuel/air mixture incorrect:

- Idle adjusting screw improperly adjusted
- Pilot jet or air passage clogged
- Air cleaner element clogged, poorly sealed, or not installed

Compression low:

- Spark plug loose
- Cylinder head insufficiently tightened
- Cylinder or piston worn
- No valve clearance
- Crankshaft oil seal leak
- Valve spring broken or weak
- Valve not seating properly (valve bent, worn, or carbon accumulation on the seating surface)
- Piston ring worn, weak, broken, or sticking
- Piston ring side clearance excessive
- Cylinder head gasket damaged
- Cylinder head warped
- Cylinder gasket damaged

Poor low-speed performance -

Spark weak:

- Spark plug dirty, broken, or gap improperly adjusted
- Spark plug cap or high-tension wiring defective
- Spark plug cap shorted or not contacting properly
- Spark plug type incorrect
- Igniter defective
- Ignition coil defective
- Crankshaft sensor defective
- Flywheel magneto defective
- Wiring connector not in good contact

Fuel/air mixture incorrect:

- Idle adjusting screw improperly adjusted
- Pilot jet, needle jet or air passage clogged
- Air cleaner element clogged, poorly sealed, or not installed
- Choke valve closed
- Carburetor fuel level too high or too low
- Fuel tank cap air vent obstructed
- Carburetor holder loose
- Air cleaner duct loose
- Fuel tap clogged

Compression low:

- Spark plug loose
- Cylinder head insufficiently tightened
- Cylinder or piston worn
- No valve clearance
- Valve spring broken or weak

- Valve not seating properly (valve bent, worn, or carbon accumulation on the seating surface)
- Piston ring worn, weak, broken, or sticking
- Piston ring side clearance excessive
- Cylinder head gasket damaged
- Cylinder head warped
- Cylinder gasket damaged
- Decompression trouble

Other:

- Igniter defective
- Brake dragging
- Clutch slipping
- Engine over heating
- Engine oil level too high
- Engine oil viscosity too high
- Ignition timing incorrect
- Drive chain trouble

Poor or no high-speed performance -**Firing incorrect:**

- Spark plug dirty, broken, or gap improperly adjusted
- Spark plug cap or high-tension wiring defective
- Spark plug cap shorted or not contacting properly
- Spark plug type incorrect
- Igniter defective
- Ignition coil defective
- Crankshaft sensor defective
- Flywheel magneto defective
- Wiring connector not in good contact

Fuel/air mixture incorrect:

- Main jet clogged or wrong size
- Jet needle or needle jet worn
- Jet needle clip in wrong position
- Carburetor fuel level too high or too low
- Air cleaner element clogged, poorly sealed, or not installed
- Choke valve closed
- Fuel contaminated with water or foreign matter
- Fuel tank cap air vent obstructed
- Carburetor holder loose
- Air cleaner duct loose
- Fuel tap clogged
- Fuel line clogged
- Needle jet or air passage clogged

Compression low:

- Spark plug loose
- Cylinder head insufficiently tightened
- Cylinder or piston worn
- No valve clearance
- Valve spring broken or weak
- Valve not seating properly (valve bent, worn, or carbon accumulation on the seating surface)
- Piston ring worn, weak, broken, or sticking
- Piston ring side clearance excessive
- Cylinder head gasket damaged
- Cylinder head warped
- Cylinder gasket damaged
- Decompression trouble

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Improper acceleration:

- Choke valve closed
- Carburetor fuel level too high or too low
- Main jet clogged
- Throttle valve does not fully open
- Air cleaner element clogged
- Muffler clogged
- Fuel contaminated with water or foreign matter
- Brake dragging
- Clutch slipping
- Engine overheating
- Engine oil level too high
- Engine oil viscosity too high
- Crankshaft bearing worn or damaged
- Ignition timing incorrect
- Crankshaft sensor defective

Knocking:

- Carbon built up in combustion chamber
- Fuel quality poor or type incorrect
- Spark plug type incorrect
- Igniter defective

Engine overheating -

Firing incorrect:

- Spark plug dirty, broken, or gap improperly adjusted
- Spark plug type incorrect
- Igniter defective

Fuel/air mixture incorrect:

- Main jet clogged or wrong size
- Carburetor fuel level too low
- Carburetor holder loose
- Air cleaner element clogged, poorly sealed, or not installed
- Air cleaner duct poorly sealed

Compression high:

- Carbon built up in combustion chamber

Engine overloaded:

- Brake dragging
- Clutch slipping
- Engine oil level too high
- Engine oil viscosity too high
- Drive chain trouble

Lubrication inadequate:

- Engine oil level too low
- Engine oil quality poor or type incorrect

Clutch operation faulty -

Clutch slipping:

- No clutch release play (KLX110C Model)
- No clutch lever play (KLX110D Model)
- Clutch cable improperly adjusted (KLX110D Model)
- Clutch cable defective (KLX110D Model)
- Clutch plate worn or warped
- Clutch spring broken or weak
- Clutch release maladjusted (KLX110C Model)

- Clutch release mechanism defective
- Clutch hub or housing unevenly worn

Clutch not disengaging properly:

- Clutch release play excessive (KLX110C Model)
- Clutch lever play excessive (KLX110D Model)
- Clutch spring tension uneven
- Engine oil deteriorated
- Engine oil viscosity too high
- Engine oil level too high
- Clutch housing frozen on drive shaft
- Clutch release mechanism defective
- Clutch hub nut loose
- Clutch plate warped or rough
- Clutch hub spline damaged

Gear shifting faulty -

Transmission does not go into gear; shift pedal does not return:

- Clutch not disengaging
- Shift fork bent or seized
- Gear stuck on the shaft
- Shift mechanism arm spring broken
- Shift mechanism arm broken
- Shift return spring broken or weak
- Shift return spring pin loose
- Shift pawl broken
- Shift drum broken

Transmission jumps out of gear:

- Shift fork worn

- Gear groove worn
- Gear dogs and/or dog grooves worn
- Shift drum groove worn
- Gear positioning lever spring broken or weak
- Shift fork pin worn
- Drive shaft, output shaft, and/or gear splines worn

Transmission skips gears:

- Gear positioning lever spring broken or weak
- Shift mechanism arm spring broken or weak

Engine noise abnormal -

Knocking:

- Carbon built up in combustion chamber
- Fuel quality poor or type incorrect
- Spark plug type incorrect
- Engine overheating
- Igniter defective

Piston slap:

- Piston clearance excessive
- Cylinder or piston worn
- Connecting rod bent
- Piston pin or piston pin holes worn

Valve noise:

- Valve clearance incorrect
- Valve spring broken or weak
- Camshaft bearing or cam face worn

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Other noise:

- Connecting rod small end clearance excessive
- Connecting rod big end clearance excessive
- Piston ring worn, broken or stuck
- Piston seized or damaged
- Cylinder head gasket leaking
- Exhaust pipe leaking at cylinder head
- Crankshaft runout excessive
- Engine mounts loose
- Crankshaft bearing worn
- Camshaft chain tensioner trouble
- Camshaft chain, sprocket, chain guide worn
- Flywheel magneto loose

Abnormal drive train noise -

Clutch noise:

- Clutch housing/friction plate clearance excessive
- Clutch housing gear excessive
- Metal chip jammed in clutch housing gear teeth

Transmission noise:

- Crankcase bearing worn or damaged
- Transmission gear worn or chipped
- Metal chip jammed in gear teeth
- Engine oil level or viscosity too low
- Kick ratchet gear not properly disengaging from kick gear
- Kick shaft idle gear worn or chipped

Drive chain noise:

- Drive chain slack improperly adjusted
- Drive chain worn
- Rear and/or engine sprocket(s) worn
- Drive chain inefficiently lubricated
- Rear wheel misaligned

Frame noise abnormal -

Front fork noise:

- Oil level or viscosity too low
- Spring broken or weak

Rear shock absorber noise:

- Shock absorber damaged

Brake noise:

- Brake maladjusted (lever or pedal play excessive)
- Brake linings over worn or worn unevenly
- Brake drum worn unevenly or scored
- Brake spring(s) broken or weak
- Foreign matter in hub

Other noise:

- Bracket, nut, bolt, etc. improperly mounted or tightened

Exhaust smoke -**Excessively white:**

- Piston oil ring worn
- Cylinder worn
- Valve oil seal damaged
- Valve guide worn
- Engine oil level too high

Black smoke:

- Air cleaner element clogged
- Main jet too large or fallen out
- Choke valve closed
- Carburetor fuel level too high

Brownish:

- Main jet too small
- Carburetor fuel level too low
- Air cleaner duct loose
- Air cleaner poorly sealed or missing

Poor handling and/or stability -**Handlebar hard to turn:**

- Cable, wiring incorrectly routed
- Steering stem locknut too tight
- Steering stem bearing damaged
- Steering stem bearing inadequately lubricated
- Steering stem bent

- Tire air pressure too low

Handlebar shakes or vibrates excessively:

- Tire worn
- Swingarm bushing damaged
- Rim warped or out of balance
- Front and/or rear axle runout excessive
- Wheel bearing worn
- Handlebar clamp loose
- Steering stem head nut loose

Handlebar pulls to one side:

- Frame bent
- Rear wheel misaligned
- Swingarm bent or twisted
- Swingarm pivot shaft runout excessive
- Steering maladjusted
- Steering stem bent
- Front fork bent
- Right/left front fork oil level uneven

Shock absorption unsatisfactory (suspension too hard):

- Front fork oil excessive
- Front fork oil viscosity too high
- Front fork bent
- Tire air pressure too high

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Shock absorption unsatisfactory (suspension too soft):

- Front fork oil level insufficient and/or front fork leaking oil
- Front fork oil viscosity too low
- Front fork and/or rear shock absorber spring weak
- Rear shock absorber leaking oil or gas
- Tire air pressure too low

Poor braking performance -

- Brake maladjusted (lever or pedal play excessive)
- Brake linings over worn or worn unevenly
- Brake drum worn unevenly or scored
- Brake cam, camshaft, shaft hole worn
- Oil, grease on lining and drum
- Dirt, water between lining and drum
- Overheated

Battery trouble -

Battery discharged:

- Charge insufficient
- Battery faulty (too low terminal voltage)
- Battery cable making poor contact
- Flywheel magneto trouble
- Wiring faulty
- Regulator trouble

Battery overcharged:

- Flywheel magneto trouble
- Regulator trouble
- Battery faulty

STORAGE

Before Storage

When the motorcycle is to be stored for any length of time, it should be prepared for storage as follows.


- Clean the entire vehicle thoroughly.
- Run the engine for about five minutes to warm the oil, then stop it and drain the engine oil.

WARNING

Engine oil is a toxic substance. Dispose of used oil properly. Contact your local authorities for approved disposal methods or possible recycling.

- Install the oil drain bolt and fill in fresh engine oil.
- Empty the fuel tank and the carburetor float bowl (Fuel will deteriorate if left for a long time.).

WARNING

Gasoline is extremely flammable and can be explosive under certain conditions, creating the potential for serious burns. Move the engine stop switch to the  position. Do not smoke. Make sure the area is well-ventilated and free from any source of flame or sparks; this includes any appliance with a pilot light. Gasoline is a toxic substance. Dispose of gasoline properly. Contact your local authorities for approved disposal methods.

- Remove the spark plug and spray fogging oil directly into the cylinder. Turn the engine over several times with the starter button to coat the cylinder wall. Install the spark plug.
- Lubricate the drive chain and all the cables.
- Spray oil on all unpainted metal surfaces to prevent rusting. Avoid getting oil on rubber parts and on the brakes.
- Lift the motorcycle on a box or stand so that both wheels are raised off the ground (If this cannot be done, put boards under the front and rear wheels to keep dampness away from the tire rubber.).
- Tie a plastic bag over the muffler to prevent moisture from entering.
- Cover the motorcycle to keep dust and dirt away from it.

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After Storage

- Remove the plastic bag from the muffler.
- Make sure the spark plug is tight.

NOTE

- *Fit the plug cap securely onto the spark plug, and pull the cap lightly to make sure that it is properly installed.*
- Fill the fuel tank with fuel.
- Check all the points listed in the Daily Pre-Ride Checks section.
- Perform a lubrication procedure in the Lubrication section.

ENVIRONMENTAL PROTECTION

Kawasaki subscribes to the guidelines of Tread Lightly! a program dedicated to protecting the great outdoors through education and fostering responsible enjoyment of public lands. When using your Kawasaki motorcycle, please follow these Tread Lightly! guidelines:

Tread Lightly!

Travel responsibly on designated roads and trails or in permitted areas.

Respect the rights of others including private property owners and all recreational trail users, campers and others to allow them to enjoy their recreational activities undisturbed.

Educate yourself by obtaining travel maps and regulations from public agencies, planning for your trip, taking recreation skills classes, and knowing how to use and operate your equipment safely.

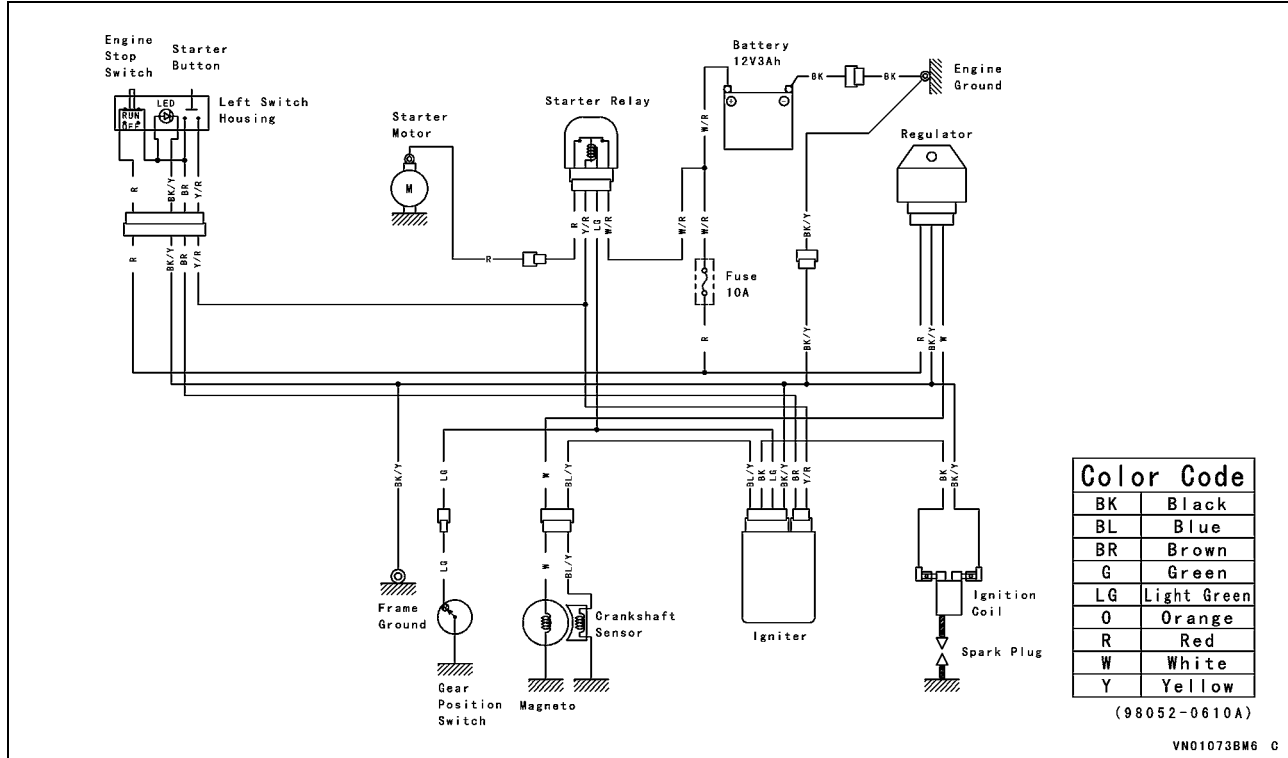
Avoid sensitive areas such as meadows, lakeshores, wetlands and streams, unless on designated routes. This protects wildlife habitat and sensitive soils from damage.

Do your part by leaving the area better than you found it, properly disposing of waste, minimizing the use of fire, avoiding the spread of invasive species, restoring degraded areas, and joining a local enthusiast organization.

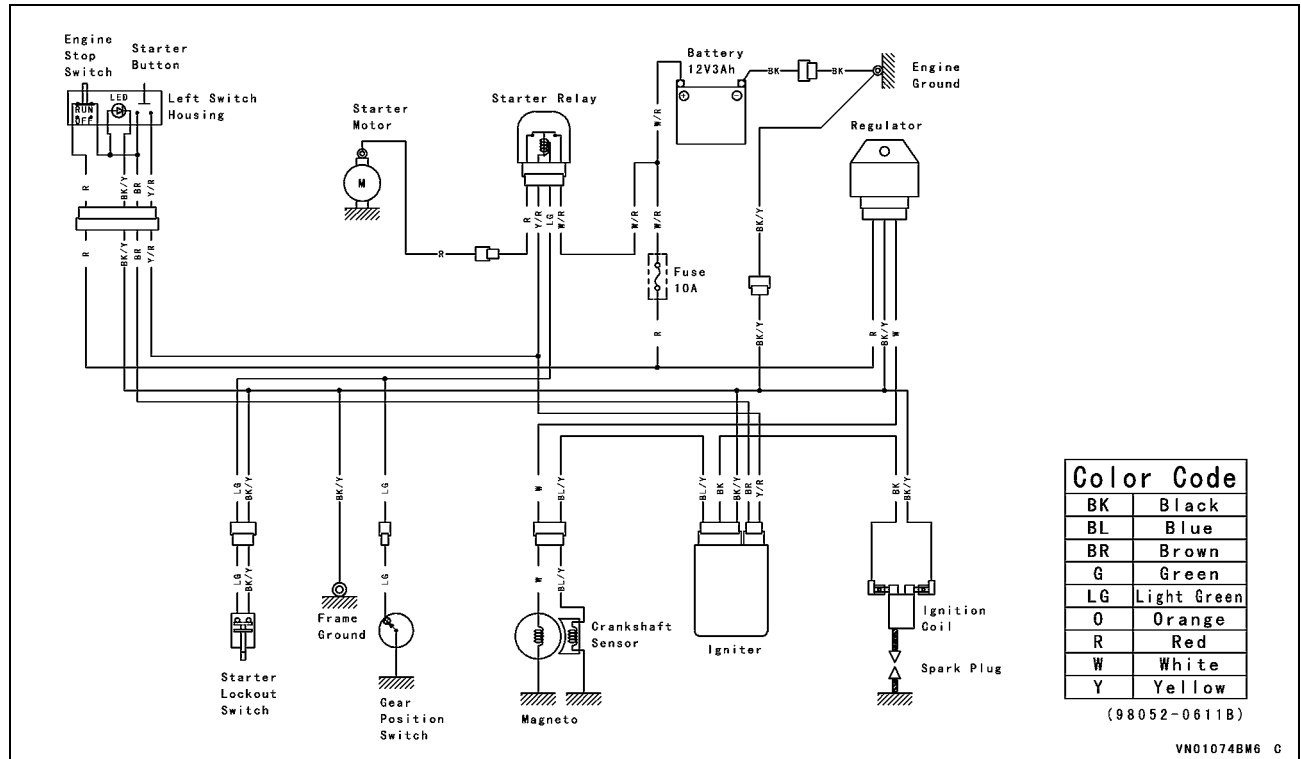
Properly discard used batteries, tires, engine oil, other vehicle components, or the entire vehicle that you might dispose of in the future. Consult your authorized Kawasaki dealer or local environmental waste agency for their proper disposal procedure.

WIRING DIAGRAM

KLX110C Model



KLX110D Model



YOUR WARRANTY/OWNER SATISFACTION

Welcome to the Kawasaki family!

Congratulations on buying your Kawasaki vehicle. You've chosen a great, high-quality product with state-of-the-art features and built to Kawasaki's high standards. Your satisfaction is important to your authorized Kawasaki dealer and to Kawasaki Motors Corp., U.S.A. Here is some important information regarding your vehicle's limited warranty.

Frequently Asked Questions

What is a Limited Warranty?

The most important thing to know about your warranty is that it protects you from manufacturing defects in material or workmanship during the warranty period. You can find the warranty period in the Kawasaki Limited Warranty Certificate your Kawasaki dealer provided to you at the time of sale. The warranty does not cover the cost of regularly-scheduled maintenance. The warranty also does not apply to the normal wear of items such as tires, brake pads, transmission drive belts, chains, sprockets, etc.

What is the Good Times Protection Plan?

Much of the warranty coverage offered by the limited warranty can be extended by purchasing Kawasaki's Good Time™ Protection Plan (GTPP). See your Kawasaki dealer or go to Kawasaki.com for more information if you don't already have the GTPP.

What Am I Responsible For?

You are responsible for maintaining your vehicle according to the maintenance schedule shown in this owner's manual.

You are responsible for notifying your dealer immediately if there is a problem, and you, as the owner, will need to authorize the dealer to inspect the unit.

You will be responsible for paying for routine maintenance, including the first scheduled service. You can have the required servicing done by your Kawasaki dealer (recommended) or an equally-qualified service facility. You can also do your own maintenance work if you have the proper tools, service references, and mechanical skills. However, if a failure is found to be caused by improper servicing, it would not be covered by the limited warranty.

You may purchase a Kawasaki Service Manual and any necessary special tools directly from your Kawasaki dealer.

You will be responsible for paying for repairs needed because of an accident, to replace worn parts such as tires, chains, brakes, and for repairs needed because of a lack of maintenance, misuse or racing.

Whether you do it yourself or take your vehicle to a Kawasaki dealer, be sure to record your service in the Maintenance Record section of this Owner's Manual. Keep all receipts for the service and/or items necessary to perform the maintenance so that in the event of a failure you can document the service history.

What Are The Dealership's Responsibilities?

Your Kawasaki dealer offers a wide range of services, parts, accessories, and information on your product and on Kawasaki.

Each dealer is independently owned and operated and is responsible for the dealership's operations, its repair, warranty, and service work, and its personnel.

Your dealer is responsible for completing the set up and pre-delivery service of your new Kawasaki vehicle. The dealership should also explain its operation, maintenance, and warranty provisions so you understand them at the time of purchase or at any other time you have questions.

The dealership is responsible for inspecting your Kawasaki vehicle if there is a failure, investigating the cause of the problem, and getting any needed authorization from Kawasaki if the repair is one that will be covered by the limited warranty. The dealership will also file all necessary paperwork. The dealership is responsible for correctly completing any necessary repairs, whether they are covered by the limited warranty or not.

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How Do I Get Warranty Service?

If there is a problem with your vehicle within the limited warranty period, you will need to schedule a service appointment and provide any maintenance records to an authorized Kawasaki dealer for inspection and diagnosis. You can go to any Kawasaki dealer for warranty repairs. Your Kawasaki dealer will inspect your vehicle and give you the results of the inspection. The dealer will perform the repairs at no cost to you if it is determined that the problem is covered by the warranty.

Kawasaki will work with your dealer to resolve any warranty issues. No authorization for warranty work can be given until your vehicle has been inspected by a Kawasaki dealer.

What if I am not Satisfied With My Warranty Service?

If you aren't satisfied with your dealership's repair work or operations, it is best to discuss the situation with the appropriate dealership manager. If you have already done this, then contact the dealership's owner or general manager to request a review of the issue.

If you are unable to resolve a problem after consulting with the dealership management and need further assistance, contact Kawasaki Motors Corp., U.S.A. at the address below. Please be certain to provide the model, vehicle identification number (VIN), mileage or hours of use, accessories, dates that events occurred and what action has been taken by both you and your dealer. Include the name and address of the dealership. To assist us in resolving your inquiry, please include copies of related receipts and any other pertinent information including the name of the dealership personnel with whom you have been working. Upon receipt of your correspondence, Kawasaki Motors Corp., U.S.A. will contact the dealership and work with it in resolving your problem.

Want to Contact Kawasaki?

This owner's manual should answer most of your questions about your Kawasaki. Your Kawasaki dealer should either be able to answer any other questions you might have immediately or be able to find the answer for you.

Please send your correspondence to:

Consumer Services
Kawasaki Motors Corp., U.S.A.
P.O. Box 25252
Santa Ana, CA 92799-5252
(949) 460-5688

MAINTENANCE RECORD

Owner Name.....

Address

Phone Number

Engine Number

Vehicle Number.....

Selling Dealer Name

Address

Phone Number

Warranty Start Date

Note: Keep this information and a spare key in a secure location.

| Date | Traveled Distance | Maintenance Performed | Dealer Name | Dealer Address |
|------|-------------------|-----------------------|-------------|----------------|
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| | | | | |
| | | | | |

KLX110CE
KLX110DE



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