Kawasaki

Includes:
- Important Safety Information
- Operating Instructions
- Maintenance and Storage

Ninja 250R Motorcycle

OWNER'S MANUAL

⚠ 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.

NOTICE

THIS PRODUCT HAS BEEN MANUFACTURED FOR USE IN A REASONABLE AND PRUDENT MANNER BY A QUALIFIED OPERATOR AND AS A VEHICLE ONLY.

Quick Reference Guide

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

GENERAL INFORMATION

HOW TO RIDE THE MOTORCYCLE

SAFE OPERATION

MAINTENANCE AND ADJUSTMENT

STORAGE

TROUBLESHOOTING GUIDE

A Table of Contents is included after the Foreword.

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.

⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

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

NOTE

○ *This note symbol indicates points of particular interest for more efficient and convenient operation.*

FOREWORD

Congratulations on your purchase of a new Kawasaki motorcycle. Your new motorcycle is the product of Kawasaki's advanced engineering, exhaustive testing, and continuous striving for superior reliability, safety and performance.

Please read this Owner's Manual carefully before riding so that you will be thoroughly familiar with the proper operation of your motorcycle's controls, its features, capabilities, and limitations. This manual offers many safe riding tips, but its purpose is not to provide instruction in all the techniques and skills required to ride a motorcycle safely. Kawasaki strongly recommends that all operators of this vehicle enroll in a motorcycle rider training program to attain awareness of the mental and physical requirements necessary for safe motorcycle operation.

To ensure a long, trouble-free life for your motorcycle, give it the proper care and maintenance described in this manual. For those who would like more detailed information on their Kawasaki Motorcycle, a Service Manual is available for purchase from any authorized Kawasaki motorcycle dealer. The Service Manual contains detailed disassembly and maintenance information. Those who plan to do their own work should, of course, be competent mechanics and possess the special tools described in the Service Manual.

Keep this Owner's Manual aboard your motorcycle at all times so that you can refer to it whenever you need information.

This manual should be considered a permanent part of the motorcycle and should remain with the motorcycle when it is sold.

All rights reserved. No part of this publication may be reproduced without our prior written permission.

This publication includes the latest information available at the time of printing. However, there may be minor differences between the actual product and illustrations and text in this manual.

All products are subject to change without prior notice or obligation.

KAWASAKI HEAVY INDUSTRIES, LTD.
Consumer Products & Machinery Company

© 2009 Kawasaki Heavy Industries, Ltd.

April 2009. (1). (CR, Ke)

TABLE OF CONTENTS

SPECIFICATIONS 8
SERIAL NUMBER LOCATIONS 12
LOCATION OF PARTS 13
LOCATION OF LABELS 16
LOADING INFORMATION 19
GENERAL INFORMATION 22
Meter Instruments 22
Speedometer and Tachometer 23
Fuel Gauge 23
Warning/Indicator Lights 23
Key 25
Ignition Switch/Steering Lock 26
Right Handlebar Switches 27
Engine Stop Switch: 27
Starter Button: 28
Left Handlebar Switches 29
Dimmer Switch: 29
Turn Signal Switch: 30
Horn Button: 30
Fuel Tank Cap 30
Fuel Tank 31
Fuel Tap 36
Stand 37
Seats 38
Helmet Hooks 41
Tool Kit 42
Tying Hooks 43
BREAK-IN 44
HOW TO RIDE THE MOTORCYCLE 46
Starting the Engine 46
Jump Starting 49
Moving Off 52
Shifting Gears 53
Braking 54
Stopping the Engine 56
Stopping the Motorcycle in an Emergency 56
Parking 57
Catalytic Converter 59
SAFE OPERATION 61

Safe Riding Technique 61
Daily Safety Checks 64
Additional Considerations for High Speed Operation 67
MAINTENANCE AND ADJUSTMENT 69
Periodic Maintenance Chart 74
Engine Oil 86
Cooling System 92
Spark Plugs 97
Evaporative Emission Control System (California model only) 98
Kawasaki Clean Air System 99
Valve Clearance 100
Air Cleaner 101
Throttle Control System 105
Choke Lever 107
Carburetors 108
Clutch 110
Drive Chain 112
Brakes 120
Brake Light Switches 125
Front Fork 127
Rear Shock Absorbers 128
Wheels 129
Battery 134
Headlight Beam 140
Fuses 142
General Lubrication 144
Cleaning Your Motorcycle 146
Bolt and Nut Tightening 152
STORAGE 154
TROUBLESHOOTING GUIDE 157
Owner Satisfaction 158
Reporting Safety Defects 160
ENVIRONMENTAL PROTECTION 161
LABEL INFORMATION 162
MAINTENANCE RECORD 170

SPECIFICATIONS

DIMENSIONS	
Overall Length	2 085 mm (82.09 in.)
Overall Width	715 mm (28.15 in.)
Overall Height	1 110 mm (43.70 in.)
Wheelbase	1 400 mm (55.12 in.)
Road Clearance	130 mm (5.12 in.)
Curb Mass	170 kg (375 lb)
ENGINE	
Type	DOHC, 2-cylinder, 4-stroke, liquid-cooled
Displacement	249 cm^3 (15.2 cu in.)
Bore × Stroke	62.0 × 41.2 mm (2.44 × 1.62 in.)
Compression Ratio	11.6 : 1
Starting System	Electric starter
Cylinder Numbering Method	Left to right, 1-2
Firing Order	1-2

Carburetor		Keihin CVK30 × 2
Ignition System		Battery and coil (transistorized ignition)
Ignition Timing		10° BTDC @1 300 r/min (rpm) ~
(Electronically advanced)		35° BTDC @4 000 r/min (rpm)
Spark Plugs		NGK CR8E or U24ESR–N
Lubrication System		Forced lubrication (wet sump)
Engine Oil	Type :	API SG, SH, SJ, SL or SM with JASO MA, MA1 or MA2
		SAE 10W-40
	Capacity :	1.7 L (1.8 US qt)
Coolant Capacity		1.5 L (1.6 US qt)

TRANSMISSION

Transmission Type	6-speed, return shift
Clutch Type	Wet, multi disc
Driving System	Chain drive
Primary Reduction Ratio	3.087 (71/23)

Final Reduction Ratio		3.214 (45/14)
Overall Drive Ratio		8.859 (Top gear)
Gear Ratio	1st	2.600 (39/15)
	2nd	1.789 (34/19)
	3rd	1.409 (31/22)
	4th	1.160 (29/25)
	5th	1.000 (27/27)
	6th	0.893 (25/28)

FRAME

Castor		26°
Trail		82 mm (3.2 in.)
Tire Size:	Front	110/70 – 17M/C 54S
	Rear	130/70 – 17M/C 62S
Rim Size:	Front	17M/C × MT2.75
	Rear	17M/C × MT3.50
Fuel Tank Capacity		18.0 L (4.8 US gal)

ELECTRICAL EQUIPMENT

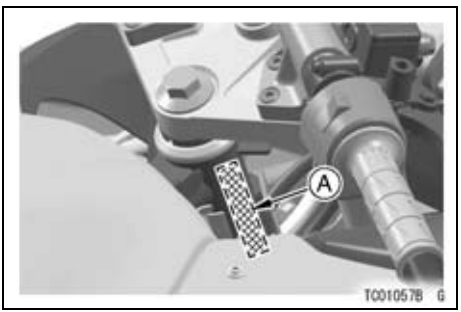
Battery	12 V 8 Ah
Headlight	High beam 12 V 55 W × 2 Low beam 12 V 55 W
Tail/Brake Light	12 V 5/21 W

Specifications subject to change without notice.

SERIAL NUMBER LOCATIONS

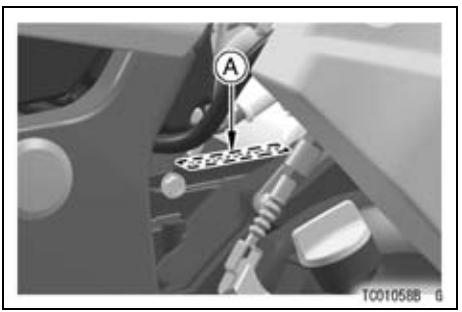
The engine and frame serial numbers are used to register the motorcycle. They are the only means of identifying your particular machine from others of the same model type. These serial numbers may be needed by your dealer when ordering parts. In the event of theft, the investigating authorities will require both numbers as well as the model type and any peculiar features of your machine that can help them identify it.

Frame No.



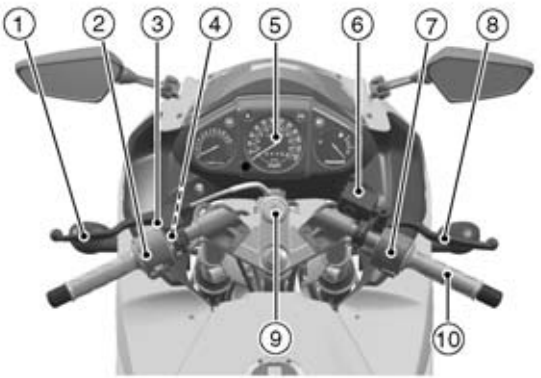
A. Frame Number

Engine No.

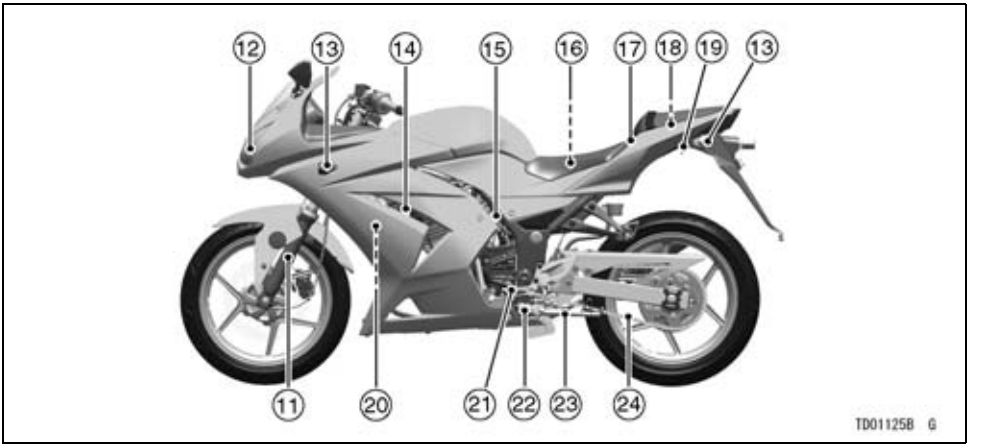


A. Engine Number

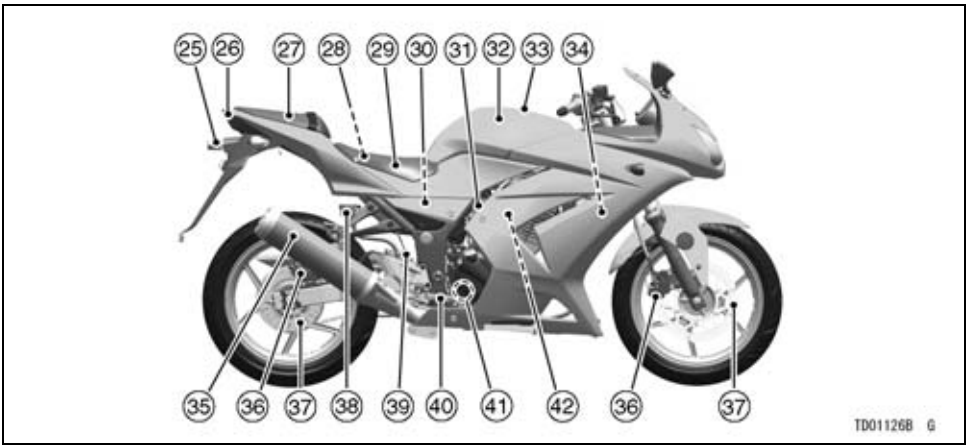
LOCATION OF PARTS



1. Clutch Lever
2. Left Handlebar Switches
3. Choke Lever
4. Starter Lockout Switch
5. Meter Instruments
6. Brake Fluid Reservoir (Front)
7. Right Handlebar Switches
8. Front Brake Lever
9. Ignition Switch/Steering Lock
10. Throttle Grip

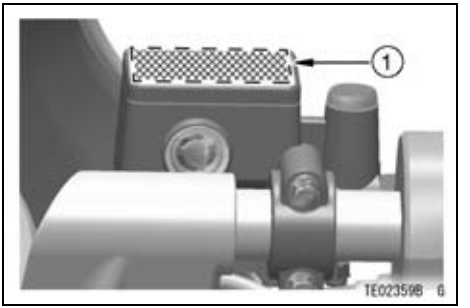


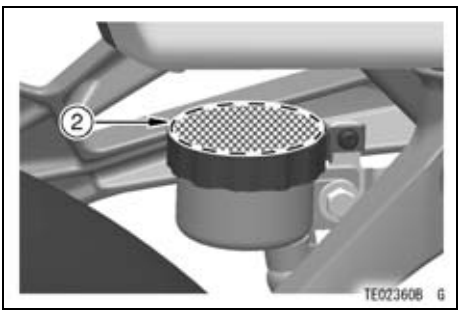
11. Front Fork
12. Headlight
13. Turn Signal Light
14. Spark Plugs
15. Idle Adjusting Screw
16. Battery
17. Seat Lock
18. Tool Kit
19. Tying Hooks
20. Radiator
21. Shift Pedal
22. Side Stand Switch
23. Side Stand
24. Drive Chain

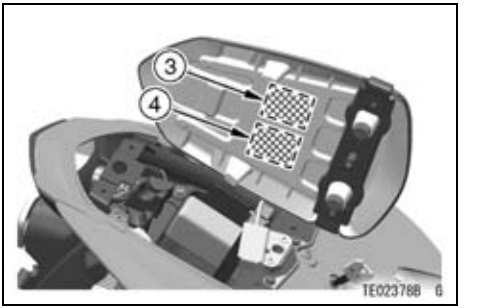


25. License Plate Light
26. Tail/Brake Light
27. Passenger's Seat
28. Fuse Box
29. Rider's Seat
30. Air Cleaner
31. Carburetor
32. Fuel Tank
33. Fuel Tank Cap
34. Radiator Cap
35. Muffler
36. Brake Caliper
37. Brake Disc
38. Brake Fluid Reservoir (Rear)
39. Rear Brake Light Switch
40. Rear Brake Pedal
41. Oil Level Gauge
42. Coolant Reserve Tank

LOCATION OF LABELS

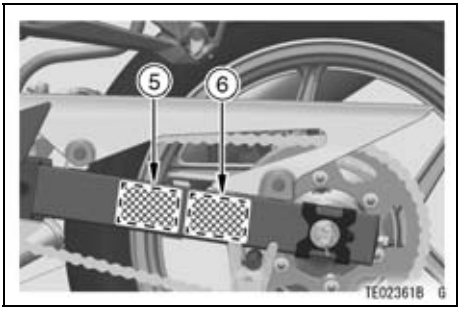


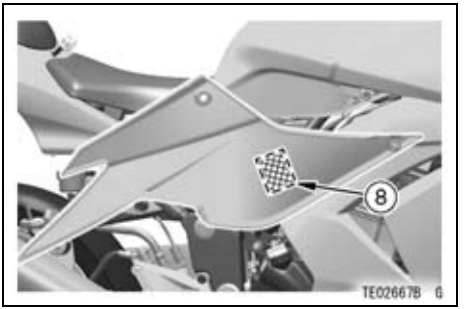


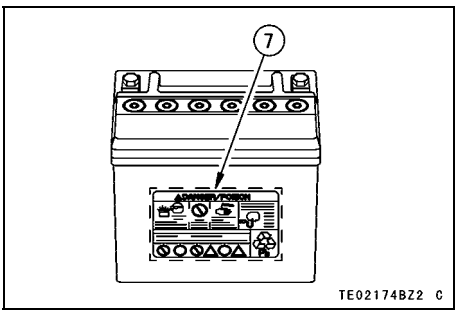


1. Brake Fluid (Front)
2. Brake Fluid (Rear)
3. Daily Safety Checks
4. Vehicle Emission Control Information

(For further information of label, refer to the "LABEL INFORMATION" chapter.)

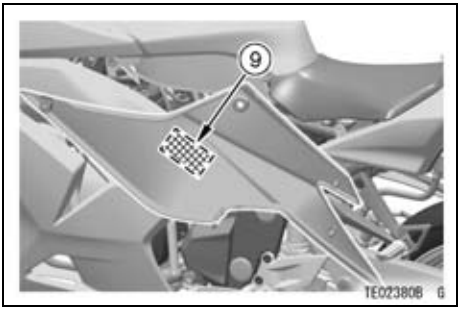


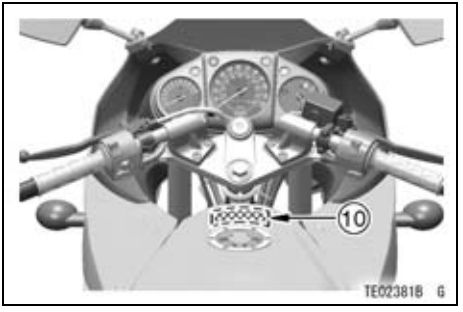


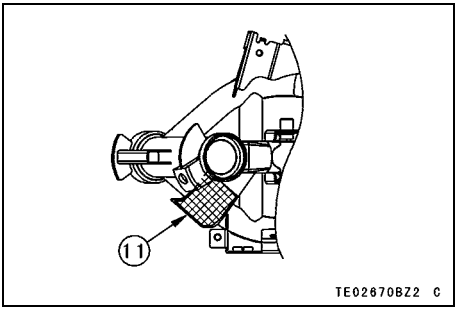


5. Tire and Load Data
6. Important Drive Chain Information
7. Battery Poison/Danger
***8. Vacuum Hose Routing Diagram**

*** only on California model (For further information of label, refer to the "LABEL INFORMATION" chapter.)**







9. Noise Emission Control Information
***10. Fuel Level**
11. Weight and Manufacture

*** only on California model**
(For further information of label, refer to the "LABEL INFORMATION" chapter.)

LOADING INFORMATION

⚠ WARNING

Incorrect loading, improper installation or use of accessories, or modification of your motorcycle may result in an unsafe riding condition. Before you ride the motorcycle, make sure that the motorcycle is not overloaded and that you have followed these instructions.

With the exception of genuine Kawasaki Parts and Accessories, Kawasaki has no control over the design or application of accessories. In some cases, improper installation or use of accessories, or motorcycle modification, will void the motorcycle warranty. In selecting and using accessories, and in loading the motorcycle, you are personally responsible for your own safety and the safety of other persons involved.

NOTE

○ *Kawasaki Parts and Accessories have been specially designed for use on Kawasaki motorcycles. We strongly recommend that all parts and accessories you add to your motorcycle be genuine Kawasaki components.*

Because a motorcycle is sensitive to changes in weight and aerodynamic forces, you must take extreme care in carrying cargo, passengers and/or in the fitting of additional accessories.

The following general guidelines have been prepared to assist you in making your determinations.

1. Any passenger should be thoroughly familiar with motorcycle operation. The passenger can affect control of the motorcycle by improper positioning during cornering and sudden movements. It is important that the passenger sit still while the motorcycle is in motion and not interfere with the operation of the motorcycle. Do not carry animals on your motorcycle.
2. You should instruct any passenger before riding to keep his feet on the passenger footpegs and hold on to the operator or seat strap. Do not carry a passenger unless he or she is tall enough to reach the footpegs and footpegs are provided.
3. All baggage should be carried as low as possible to reduce the effect on the motorcycle center of gravity. Baggage weight should also be distributed equally on both sides of the motorcycle. Avoid carrying baggage that extends beyond the rear of the motorcycle.
4. Baggage should be securely attached. Make sure that the baggage will not move around while you are riding. Recheck baggage security as often as possible (not while the motorcycle is in motion) and adjust as necessary.
5. Do not carry heavy or bulky items on a luggage rack. They are designed for light items, and overloading can affect handling due to changes in weight distribution and aerodynamic forces.

6. Do not install accessories or carry baggage that impairs the performance of the motorcycle. Make sure that you have not adversely affected any lighting components, road clearance, banking capability (i.e., lean angle), control operation, wheel travel, front fork movement, or any other aspect of the motorcycle's operation.
7. Weight attached to the handlebar or front fork will increase the mass of the steering assembly and can result in an unsafe riding condition.
8. Fairings, windshields, backrests, and other large items have the capability of adversely affecting stability and handling of the motorcycle, not only because of their weight, but also due to the aerodynamic forces acting on these surfaces while the motorcycle is in operation. Poorly designed or installed items can result in an unsafe riding condition.
9. This motorcycle was not intended to be equipped with a sidecar or to be used to tow any trailer or other vehicle. Kawasaki does not manufacture sidecars or trailers for motorcycles and cannot predict the effects of such accessories on handling or stability, but can only warn that the effects can be adverse and that Kawasaki cannot assume responsibility for the results of such unintended use of the motorcycle. Furthermore, any adverse effects on motorcycle components caused by the use of such accessories will not be remedied under warranty.

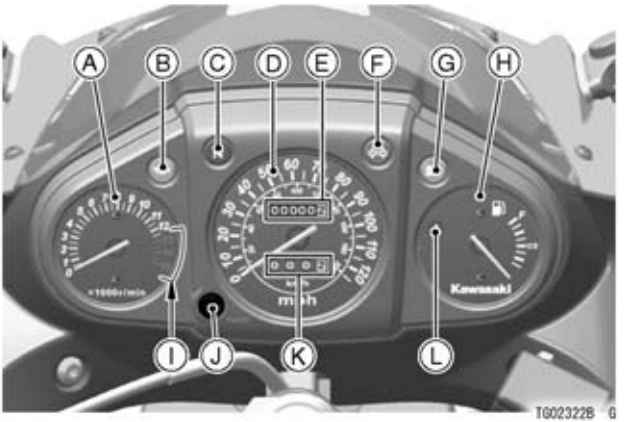
Maximum Load

Weight of rider, passenger, baggage, and accessories must not exceed 170 kg (375 lb).

GENERAL INFORMATION

Meter Instruments

A. Tachometer
B. Oil Pressure Warning Light
C. Neutral Indicator Light
D. Speedometer
E. Odometer
F. Turn Signal Indicator Light
G. High Beam Indicator Light
H. Fuel Gauge
I. Red Zone
J. Reset Button
K. Trip Meter
L. Coolant Temperature Warning Light



Speedometer and Tachometer

The speedometer shows the speed of the vehicle. In the speedometer face are the odometer and trip meter. The odometer shows the total distance that the vehicle has been ridden. The trip meter shows the distance traveled since it was last reset to zero. The trip meter can be reset to zero by pushing the reset button.

The tachometer shows the engine speed in the revolutions per minute (r/min, rpm). On the right side of the tachometer face is a portion called the “red zone.” Engine r/min (rpm) in the red zone is above maximum recommended engine speed and is also above the range for good performance.

NOTICE

Engine r/min (rpm) should not be allowed to enter the red zone; operation in the red zone will overstress the engine and may cause serious engine damage.

Fuel Gauge

The fuel gauge shows the amount of fuel in the fuel tank. When the needle comes near the E (empty) position, refuel at the earliest opportunity.

When vehicle stands with Side Stand, Fuel Gauge cannot show the amount of fuel in the fuel tank exactly. Stand upright the vehicle to check the fuel level.

Warning/Indicator Lights

: The oil pressure warning light goes on whenever the oil pressure is dangerously low or the ignition key is

in the ON position with the engine not running, and goes off when the engine oil pressure is high enough. Refer to the Maintenance and Adjustment chapter for more detailed engine oil information.

: When the headlight is on high beam, the high beam indicator light is lit.

: When the turn signal switch is turned to left or right, the turn signal indicator light flashes on and off.

N : When the transmission is in neutral, the neutral indicator light is lit.

: The coolant temperature warning light goes on whenever the ignition key is turned to “ON” or the coolant temperature is higher when the motorcycle is in operation. If the warning light does not go off, have the warning light or cooling system checked by an authorized Kawasaki dealer.

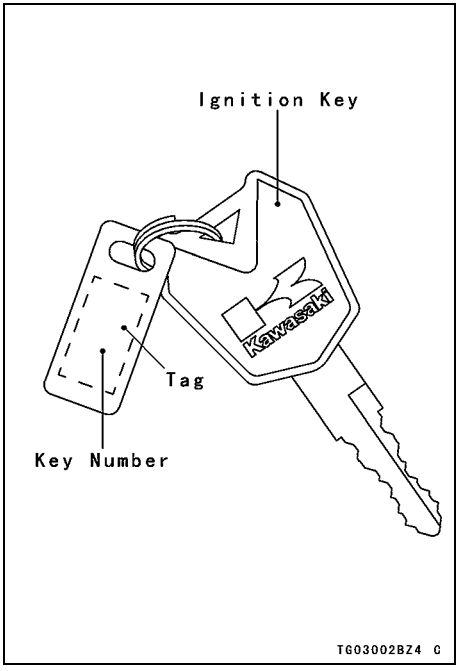
Key

This motorcycle has a combination key, which is used for the ignition switch/steering lock, seat lock, and fuel tank cap.

Blank keys are available at your Kawasaki dealers. Ask your dealer to make any additional spare keys you may need, using your original key as a master, or using the key code on the tag with your keys.

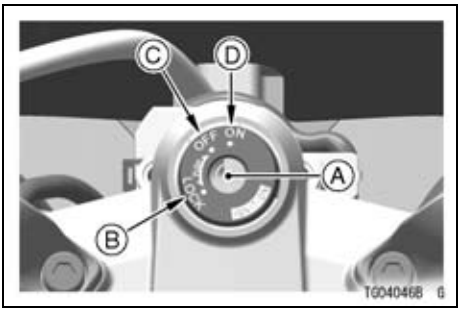
Record the code from the tag with your keys here. Participating Kawasaki dealers can use the code to make a new key in the event that your original keys are lost.

Write your key number here.



Ignition Switch/Steering Lock

This is a three-position, key-operated switch. The key can be removed from the switch when it is in the OFF or LOCK position.



A. Ignition Switch/Steering Lock
B. LOCK position
C. OFF position
D. ON position

OFF	Engine off. All electrical circuits off.
ON	Engine on. All electrical equipment can be used.
LOCK	Steering locked. Engine off. All electrical circuits off.

NOTE

○ *The tail and license plate lights are on whenever the ignition key is in the ON position. One headlight goes on when the starter button is released after starting the engine. To avoid battery discharge, always start the engine immediately after turning the ignition key to "ON".*

To lock the steering:

1. Turn the handlebar fully to the left.
2. For locking push down the key in the OFF position and turn it to Lock position.

3. Pull the key out.

NOTE

○ *If the steering is hard to lock, turn the handlebar slightly to the left or the right.*

Right Handlebar Switches

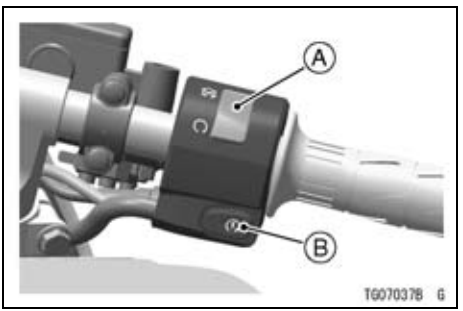
Engine Stop Switch:

In addition to the ignition switch, the engine stop switch must be in the ⟳ position for the motorcycle to operate.

The engine stop switch is for emergency use. If some emergency requires stopping the engine, move the engine stop switch to the ⊠ position.

NOTE

○ *Although the engine stop switch stops the engine, it does not turn off all the electrical circuits. Ordinarily, the ignition switch should be used to stop the engine.*



A. Engine Stop Switch
B. Starter Button

Starter Button:

The starter button operates the electric starter when the transmission is in neutral.

Refer to the Starting the Engine section of the "How to Ride the Motorcycle" chapter for starting instructions.

Left Handlebar Switches

Dimmer Switch:

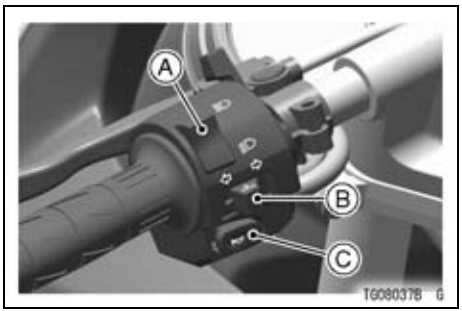
High or low beam can be selected with the dimmer switch. When the headlight is on high beam (≣D), the high beam indicator light is lit.

High beam.....(≣D)

Low beam.....(D)

NOTE

○ *When the headlight is on high beam, both head lights are lit. When the headlight is on low beam, only one headlight is lit.*



A. Dimmer Switch
B. Turn Signal Switch
C. Horn Button

Turn Signal Switch:

When the turn signal switch is turned to the left (⇦) or right (⇨), the corresponding turn signal flashes on and off.

To stop flashing, push the switch in.

Horn Button:

When the horn button is pushed, the horn sounds.

Fuel Tank Cap

To open the fuel tank cap, pull up the key hole cover. Insert the ignition key into the fuel tank cap and turn the key to the right.

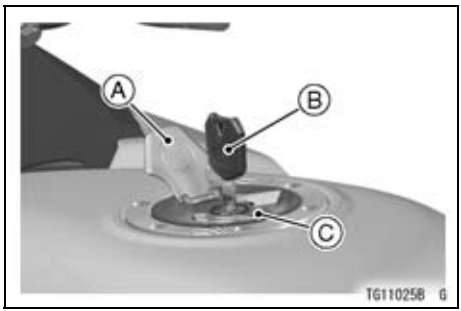
To close the cap, push it down into place with the key inserted. The key can be removed by turning it to the left to the original position.

NOTE

○ *The fuel tank cap cannot be closed without the key inserted, and the key cannot be removed unless the cap is locked properly.*

NOTE

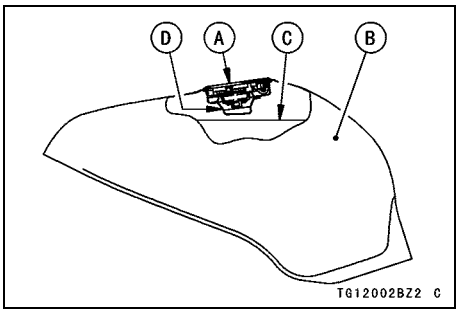
○ *Do not push on the key to close the cap, or the cap cannot be locked.*



A. Key Hole Cover
B. Ignition Key
C. Fuel Tank Cap

Fuel Tank

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



A. Tank Cap
B. Fuel Tank
C. Top Level
D. Filler Neck

⚠ WARNING

Gasoline is extremely flammable and can be explosive under certain conditions, creating the potential for serious burns. Turn the ignition switch "OFF". 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.

NOTICE

California models only: Never fill the tank so the fuel level rises into the filler neck. If the tank is overfilled, heat may cause the fuel to expand and flow into the Evaporative Emission Control System resulting in hard starting and engine hesitation.

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. 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.

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

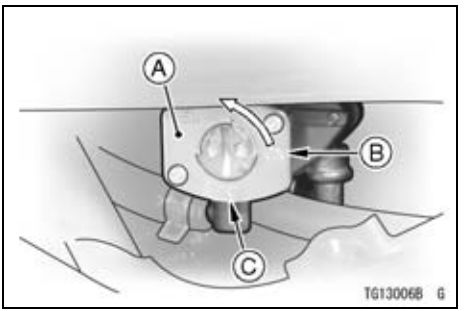
Never use gasoline with an octane rating lower than the minimum specified by Kawasaki.
Never use "gasohol" with more than 10% ethanol, or more than 5% methanol. Gasoline containing methanol must also be blended with solvents and corrosion inhibitors.
Certain ingredients of gasoline may cause paint fading 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.

NOTICE

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.

Fuel Tap

The fuel tap is mounted behind the left side cover.



A. Fuel Tap
B. ON
C. PRI

The fuel tap has two positions: ON and PRI (prime).

The PRI position is useful only for completely draining the tank.

NOTE

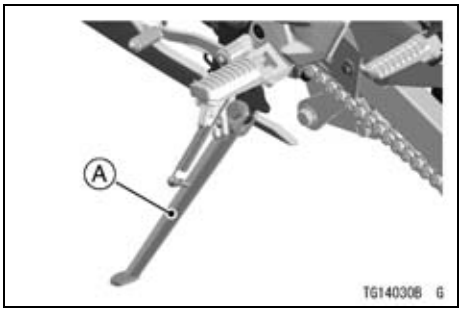
- *Do not operate the fuel tap for normal riding.*
- *If the fuel tap is operated for draining the tank, the fuel tap should be in ON position.*

⚠ WARNING

Running out of fuel and having to look down at the fuel tap on the highway could cause an accident resulting in severe injury or death. Practice operating the fuel tap with the motorcycle stopped so that you can easily switch to the reserve setting without taking your eyes off the road. A hot engine can cause serious burns so be careful not to touch it while operating the fuel tap. Do not leave the fuel tap in the PRI (prime) position while riding or parking the motorcycle. The engine may become flooded or fuel may spill onto the ground and create a fire hazard if the vehicle falls over.

Stand

The motorcycle is equipped with a side stand.



A. Side Stand

NOTE

○ *When using the side stand, turn the handlebar to the left.*

Whenever the side stand is used, make it a practice to kick the stand fully up before sitting on the motorcycle.

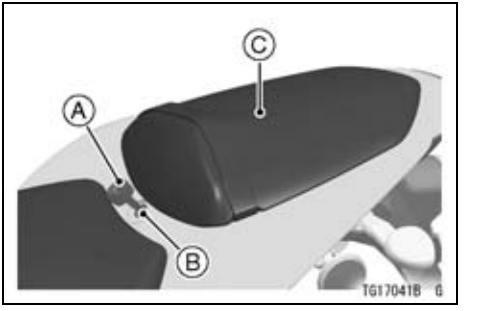
NOTE

○ *The motorcycle is equipped with a side stand switch. This switch is designed so that the engine does not start if the transmission is in gear and the side stand is down.*

Seats

Passenger's Seat Removal

Remove the passenger's seat by inserting the ignition key into the seat lock, and turning it clockwise.

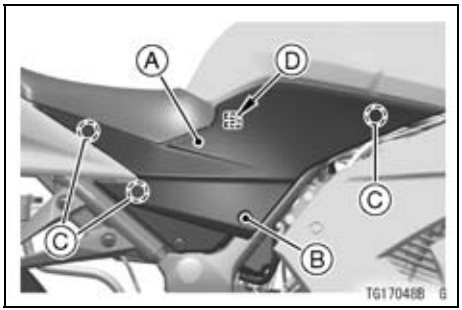


A. Ignition Key
B. Seat Lock
C. Passenger's Seat

Rider's Seat Removal

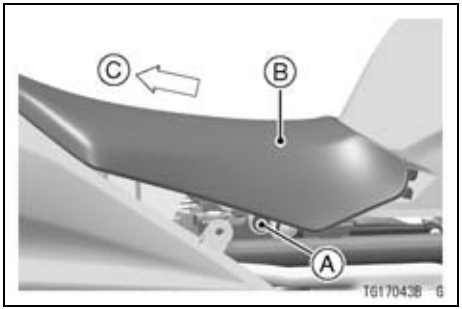
● Remove the bolts and the left and right side covers.

- Pull out the left and right side covers, while pulling the projections out.



A. Side Cover (Right Side)
B. Bolt
C. Projections

- Remove the bolts and pull off the seat to the up and rear.



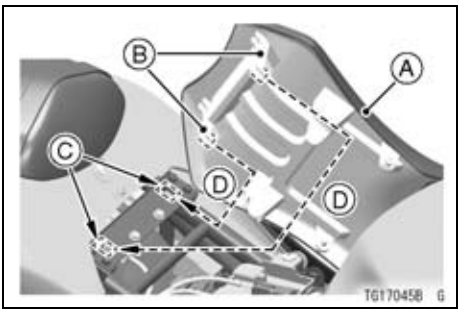
A. Bolt
B. Rider's Seat
C. Pull Up and Rear

Seat Installation

Install the rider's and passenger's seats in the reverse order of removal.

Rider's Seat -

- Insert the tabs on the rear of the rider's seat into the slots on the frame and tighten the bolts.



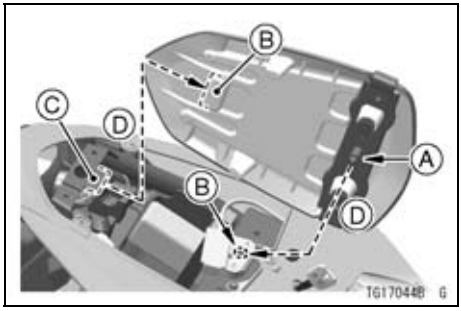
A. Rider's Seat
B. Tabs
C. Slots
D. Insert

- Install the left and right side covers and tighten bolts.

Passenger's Seat -

- Insert the tab of the bracket into the slot in the rear of the passenger's seat.
- Insert the projection at the front of the passenger's seat into the slot on the frame.

- Push down the front part of the passenger's seat until the lock clicks.

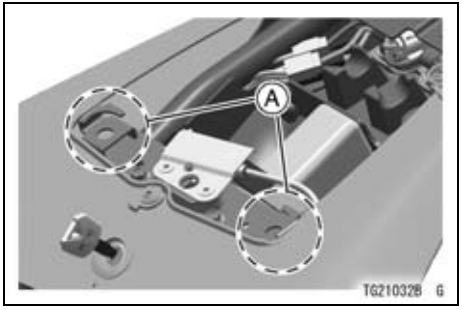


A. Projection
B. Slot
C. Tab
D. Insert

- Pull up the front and rear ends of the passenger's and rider's seats to make sure they are securely locked.

Helmet Hooks

Helmets can be secured to the motorcycle using the helmet hooks located under the passenger's seat.



A. Helmet Hooks

⚠ WARNING

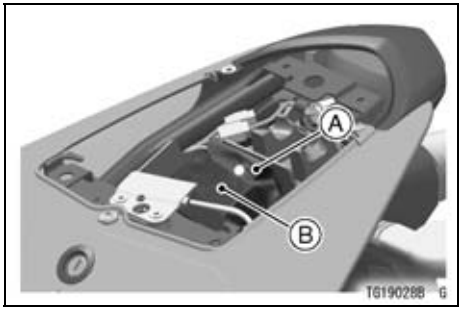
Riding with helmets attached to the hooks could cause an accident by distracting the operator or interfering with normal vehicle operation. Do not ride the motorcycle with helmets attached to the hooks.

Tool Kit

The tool kit is located under the passenger's seat.

Store the tool kit in the compartment provided. The kit contains tools that can be helpful in making roadside repairs, adjustments, and some maintenance procedures explained in this manual.

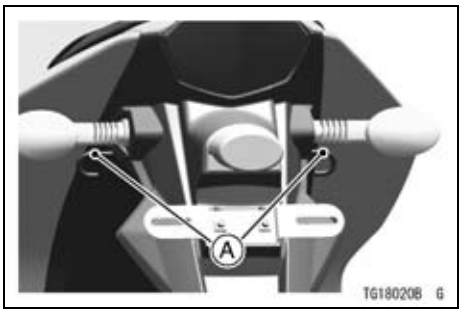
The tool kit should be fixed by the tool kit cover.



A. Tool Kit
B. Tool Kit Cover

Tying Hooks

When tying up light loads to the seat, use the tying hooks located on the left and right sides of the rear fairing.



A. Tying Hooks

BREAK-IN

The first 1,600 km (1,000 mi) that the motorcycle is ridden is designated 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 a few thousand kilometers.

The following rules should be observed during the break-in period.

- The table shows maximum recommended engine speed during the break-in period.

Distance traveled	Maximum engine speed
0 ~ 800 km (0 ~ 500 mi)	4 000 r/min (rpm)
800 ~ 1 600 km (500 ~ 1 000 mi)	6 000 r/min (rpm)

- 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.
- Do not race the engine while the transmission is in neutral.

⚠ WARNING

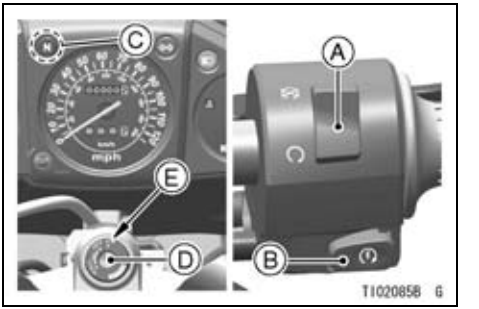
New tires are slippery and may cause loss of control and injury.
A break-in period of 160 km (100 miles) is necessary to establish normal tire traction. During break-in, avoid sudden and maximum braking and acceleration, and hard cornering.

In addition to the above, at 1 000 km (600 mi) it is extremely important that the owner have the initial maintenance service performed by a competent mechanic following the procedures in the Service Manual.

HOW TO RIDE THE MOTORCYCLE

Starting the Engine

- Check that the engine stop switch is in the ☊ position.
- Turn the ignition key to “ON”.
- Make sure the transmission is in neutral.

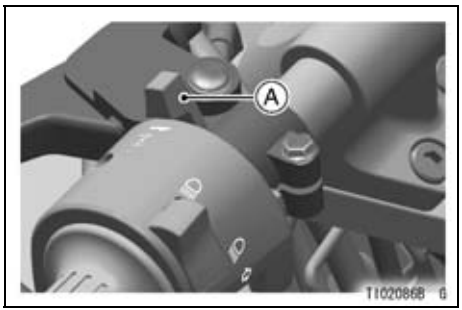


A. Engine Stop Switch
B. Starter Button
C. Neutral Indicator Light
D. Ignition Switch
E. ON position

- If the engine is cold, pull the choke lever all the way.

NOTE

○ *When the engine is already warm or on hot day [35°C (95°F) or more], close the throttle completely and do not use the choke for starting the engine.*



A. Choke Lever

● Leaving the throttle completely closed, push the starter button.

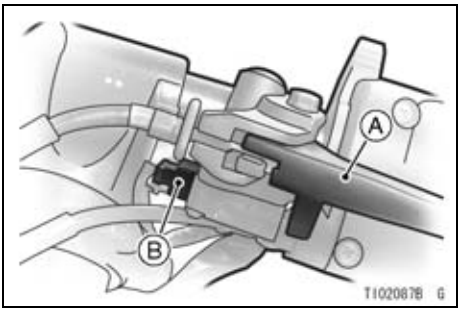
NOTICE

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

○ *If the engine is flooded, crank the engine over with the throttle fully open until the engine starts.*

○ *The motorcycle is equipped with a starter lockout switch. This switch is designed so that the engine does not start if the transmission is in gear and side stand is down. However, the engine can be started if the clutch lever is pulled and the side stand is fully up.*



A. Clutch Lever
B. Starter Lockout Switch

- Gradually return the choke lever back a little at a time as necessary to keep the engine speed below 2 500 r/min (rpm) during warm-up.
- When the engine is warmed up enough to idle without using the choke, push the choke lever all the way back.

NOTE

○ *If you drive the motorcycle before the engine is warmed up, return the choke to the off position as soon as your start moving.*

NOTICE

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

Jump Starting

If your motorcycle battery is "run down," it should be removed and charged. If this is not practical, a 12 volt booster battery and jumper cables may be used to start the engine.

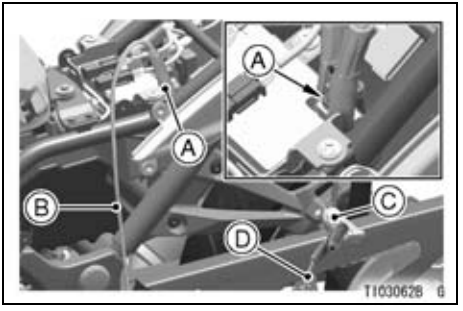
⚠ DANGER

Battery acid generates hydrogen gas which is flammable and explosive under certain conditions. It is present within a battery at all times, even in a discharged condition. Keep all flames and sparks (cigarettes) away from the battery. Wear eye protection when working with a battery. In the event of battery acid contact with skin, eyes, or clothing, wash the affected areas immediately with water for at least five minutes. Seek medical attention.

Connecting Jumper Cables

- Remove side covers and the rider's seat.
- Make sure the ignition key is turned to OFF.

- Pull up the cover. (Refer to the Battery section of the “Maintenance and Adjustment” chapter.)
- Connect a jumper cable from the positive (+) terminal of the booster battery to the positive (+) terminal of the motorcycle battery.



A. Motorcycle Battery Positive (+) Terminal
B. From Booster Battery Positive (+) Terminal
C. Unpainted Metal Surface
D. From Booster Battery Negative (–) Terminal

- Connect another jumper cable from the negative (–) terminal of the booster battery to your motorcycle shift pedal or other unpainted metal surface. Do not use the negative (–) terminal of the battery.

⚠ WARNING

Batteries contain sulfuric acid that can cause burns and produce hydrogen gas which is highly explosive. Do not make this last connection at the battery. Take care not to touch the positive and negative cables together, and do not lean over the battery when making this last connection. Do not connect to a frozen battery. It could explode. Do not reverse polarity by connecting positive (+) to negative (–), or a battery explosion and serious damage to the electrical system may occur.

- Follow the standard engine starting procedure.

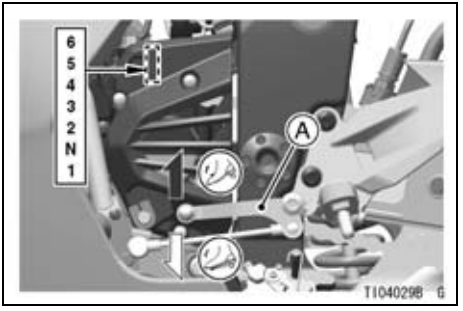
NOTICE

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.

- After the engine has started, disconnect the jumper cables. Disconnect the negative (–) cable from the motorcycle first.
- Reinstall the parts removed.

Moving Off

- 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.



A. Shift Pedal

NOTE

- *The motorcycle is equipped with a side stand switch. This switch is designed so that the engine does not start if the transmission is in gear and the side stand is down.*
- *When the headlight is on high beam, two headlight beams are lit, and on low beam, one headlight is lit.*

Shifting Gears

- Close the throttle while pulling in the clutch lever.
- Shift into the next higher or lower gear.
- For smooth riding, each gear position should cover the proper rate of speed shown in the table.
- Open the throttle part way, while releasing the clutch lever.

⚠ 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. Downshifting should be done below 5,000 rpm for each gear.

Vehicle speed when shifting

Shifting up	km/h (mph)	Shifting down	km/h (mph)
1st → 2nd	20 (12)	6th → 5th	25 (15)
2nd → 3rd	25 (15)	5th → 4th	20 (12)
3rd → 4th	30 (19)	4th → 3rd	15 (9)
4th → 5th	35 (21)	3rd → 2nd	15 (9)
5th → 6th	40 (28)	2nd → 1st	15 (9)

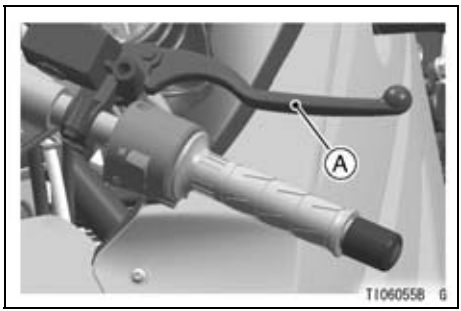
NOTE

○ *The transmission is equipped with a positive neutral finder. When the motorcycle is standing still, the transmission cannot be shifted past neutral from 1st gear. To use the positive neutral finder, shift down to 1st gear, then lift up on the shift pedal while standing still. The transmission will shift only into neutral.*

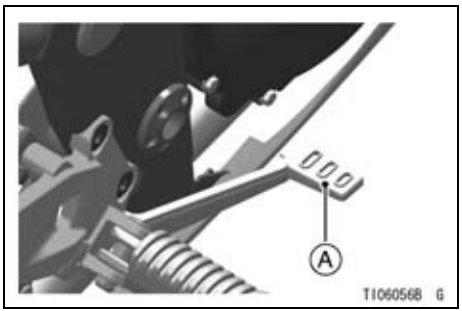
Braking

- Close the throttle completely, leaving the clutch engaged (except when shifting gears) so that the engine will help slow down the motorcycle.
- Shift down one gear at a time so that you are in 1st gear when you come to a complete stop.
- When stopping, always apply both brakes at the same time. Normally the front brake should be applied a little more than the rear. Shift down or fully disengage the clutch as necessary to keep the engine from stalling.
- Never lock the brakes, or it will cause the tires to skid. When turning a corner, it is better not be brake at all. Reduce your speed before you get into the corner.
- For emergency braking, disregard downshifting, and concentrate on

applying the brakes as hard as possible without skidding.



A. Front Brake Lever



A. Rear Brake Pedal

Stopping the Engine

- Close the throttle completely.
- Shift the transmission into neutral.
- Turn the ignition key to “OFF”.
- Support the motorcycle on a firm, level surface with the side stand.
- Lock the steering.

Stopping the Motorcycle in an Emergency

Your Kawasaki Motorcycle has been designed and manufactured to provide you optimum safety and convenience. However, in order to fully benefit from Kawasaki’s safety engineering and craftsmanship, it is essential that you, the owner and operator, properly maintain your motorcycle and become thoroughly familiar with its operation. Improper maintenance can create a dangerous situation known as throttle failure. Two of the most common causes of throttle failure are:

1. An improperly serviced or clogged air cleaner may allow dirt and dust to enter the carburetor and stick the throttle open.
2. During removal of the air cleaner, dirt is allowed to enter and jam the carburetor.

In an emergency situation such as throttle failure, your vehicle may be stopped by applying the brakes and disengaging the clutch. Once this stopping procedure is initiated, the engine stop switch may be used to stop the engine. If the engine stop switch is used, turn off the ignition switch after stopping the motorcycle.

Parking

- Shift the transmission into neutral and turn the ignition key to “OFF”.
- Support the motorcycle on a firm, level surface with the side stand.

NOTICE

Do not park on a soft or steeply inclined surface, or the motorcycle may fall over.

- If parking inside a garage or other structure, be sure it is well ventilated and the motorcycle is not close to any source of flame or sparks; this includes any appliance with a pilot light.

⚠ WARNING

The muffler and exhaust pipe are very hot while the engine is running and just after the engine stop. This can ignite a fire, resulting in property damage or severe personal injury.
Do not idle or park your vehicle in an area where flammable materials such as grasses or dry leaves may contact with muffler or exhaust pipe.

⚠ WARNING

Gasoline is extremely flammable and can be explosive under certain conditions, creating the potential for serious burns. Turn the ignition switch "OFF". 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.

- Lock the steering to help prevent theft.

Catalytic Converter

This motorcycle is equipped with a catalytic converter in the exhaust system. Platinum and rhodium in the converter react with carbon monoxide, hydrocarbons and nitrogen oxides to convert them into carbon dioxide, water, nitrogen and oxygen resulting in much cleaner exhaust gases to be discharged into the atmosphere.

For proper operation of the catalytic converter, the following cautions must be observed.

⚠ WARNING

The muffler and exhaust pipe are very hot while the engine is running and just after the engine stop. This can ignite a fire, resulting in property damage or severe personal injury.
Do not idle or park your vehicle in an area where flammable materials such as grasses or dry leaves may contact with muffler or exhaust pipe.

- Use only unleaded gasoline. Never use leaded gasoline. Leaded gasoline significantly reduces the capability of the catalytic converter.
- Do not coast the vehicle with the ignition switch and/or engine stop switch off. Do not attempt to start the engine by rolling the vehicle if the battery is discharged. Do not operate the vehicle with the engine or any one cylinder misfiring. Under these conditions unburned air/fuel mixture flowing out of engine excessively accelerates reaction in the converter allowing the converter to overheat and become damaged when the engine is hot, or reduces converter performance when the engine is cold.

NOTICE

In order to protect the emission control parts, do not turn off the ignition switch when the motorcycle is in motion.

SAFE OPERATION

Safe Riding Technique

The points given below are applicable for everyday motorcycle use and should be carefully observed for safe and effective vehicle operation.

For safety, eye protection and a helmet are strongly recommended. Gloves and suitable footwear should also be used for added protection in case of a mishap.

A motorcycle does not provide the impact protection of an automobile, so defensive riding in addition to wearing protective apparel is extremely important. Do not let protective apparel give you a false sense of security.

When riding always keep both hands on the handlebars and both feet on the footpegs. Removing your hands from the handlebars or feet from the footpegs while riding can be hazardous. If you remove even one hand or foot, you can reduce your ability to control the motorcycle.

Before changing lanes, look over your shoulder to make sure the way is clear. Do not rely solely on the rear view mirror; you may misjudge a vehicle's distance and speed, or you may not see it at all.

In general your actions should be smooth as sudden acceleration, braking or turning may cause loss of control, especially when riding in wet conditions or on loose roadway surfaces, when the ability to maneuver will be reduced.

When going up steep slopes, shift to a lower gear so that there is plenty of power to spare rather than overloading the engine.

When applying the brakes, use both the front and rear brakes. Applying only one brake for sudden braking may cause the motorcycle to skid and lose control.

When going down long slopes, control vehicle speed by closing the throttle. Use the front and rear brakes for auxiliary braking.

In wet conditions, rely more on the throttle to control vehicle speed and less on the front and rear brakes. The throttle should also be used judiciously to avoid skidding the rear wheel from too rapid acceleration or deceleration.

Riding at the proper rate of speed and avoiding unnecessarily fast acceleration are important not only for safety and low fuel consumption but also for long vehicle life and quieter operation.

On rough roads, exercise caution, slow down, and grip the fuel tank with the knees for better stability.

When quick acceleration is necessary as in passing, shift to a lower gear to obtain the necessary power.

Do not downshift at too high an r/min (rpm) to avoid damage to the engine from overrevving.

Avoiding unnecessary weaving is important to the safety of both the rider and other motorists.

Daily Safety Checks

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

If any irregularities are found during these checks, refer to the Maintenance and Adjustment chapter or see your dealer for 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 safety 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.

Fuel ..... Adequate supply in tank, no leaks.
Engine oil ..... Oil level between level lines.
Tires ..... Air pressure (when cold):

Front	Up to 170 kg (375 lb) Load	200 kPa (2.00 kg/cm², 28 psi)
Rear	Up to 170 kg (375 lb) Load	225 kPa (2.25 kg/cm², 32 psi)

Install the air valve cap.
Drive chain ..... Slack 20 ~ 30 mm (0.8 ~ 1.2 in.)
Lubricate the dive chain if dry.
Nuts, bolts, fasteners .. Check that steering and suspension components, axles, and all controls are properly tightened or fastened.
Steering ..... Action smooth but not loose from lock to lock.
No binding of control cables.
Brakes ..... Brake pad wear: Lining thickness more than 1 mm (0.04 in.) left.
No brake fluid leakage.
Throttle ..... Throttle grip play 2 ~ 3 mm (0.08 ~ 0.12 in.).
Clutch ..... Clutch lever play 2 ~ 3 mm (0.08 ~ 0.12 in.).
Clutch lever operates smoothly.
Coolant ..... No coolant leakage.
Coolant level between level lines (when engine is cold).

Electrical equipment ...	All lights (Headlight, Tail/Brake Lights, Turn Signal Lights, Warning/Indicator Lights) and horn work.
Engine stop switch	Stops engine.
Side stand	Returns to its fully up position by spring tension. Returns spring not weak or not damaged.

Refer to the “Daily Safety Checks” caution label attached to the passenger’s seat.

Additional Considerations for High Speed Operation

Brakes: The importance of the brakes, especially during high speed operation, cannot be overemphasized. Check to see that they are correctly adjusted and functioning properly.

Steering: Looseness in the steering can cause loss of control. Check to see that the handlebar turns freely but has no play.

Tires: High speed operation is hard on tires, and good tires are crucial for riding safety. Examine their overall condition, inflate them to the proper pressure, and check the wheel balance.

Fuel: Have sufficient fuel for the high fuel consumption during high speed operation.

Engine Oil: To avoid engine seizure and resulting loss of control, make sure that the oil level is at the upper level line.

Coolant: To avoid overheating, check that the coolant level is at the upper level line.

Electrical Equipment: Make sure that the headlight, tail/brake light, turn signals, horn, etc., all work properly.

Miscellaneous: Make sure that all nuts and bolts are tight and that all safety related parts are in good condition.

⚠ WARNING

Handling characteristics of a motorcycle at high speeds may vary from those you are familiar with at legal highway speeds. Do not attempt high speed operation unless you have received sufficient training and have the required skills.

MAINTENANCE AND ADJUSTMENT

The maintenance and adjustments outlined in this chapter must be carried out and must be done in accordance with the Periodic Maintenance Chart to keep the motorcycle 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 and California Air Resources Board. 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 carburetors.

2. Exhaust Emission Control System

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

3. Evaporative Emission Control System

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

3. Evaporative Emission Control System (California)

Vapors caused by fuel evaporation in the fuel system are not vented into the atmosphere. Instead, fuel vapors are routed into the running engine to be burned, or stored in a canister when the engine is stopped. Liquid fuel is caught by a vapor separator and returned to the fuel tank.

High Altitude Performance Adjustment Information

To improve the EMISSION CONTROL PERFORMANCE of vehicles operated above 4 000 feet, Kawasaki recommends the following Environmental Protection Agency (EPA) approved modification.

NOTE

○ *When properly performed, these specified modifications only are not considered to be emissions system "tampering" and vehicle performance is generally unchanged as a result.*

Installation Instructions:

High altitude adjustment requires replacement of certain carburetor components. Installation of these optional parts may be performed by an authorized Kawasaki

dealer, or the consumer, following repair recommendations specified in the appropriate Kawasaki Service Manual.

MAINTENANCE AND WARRANTY

Proper maintenance is necessary to ensure that your motorcycle will continue to have low emission levels. This Owner's Manual contains those maintenance recommendations for your motorcycle. Those items identified by the Periodic Maintenance Chart are necessary to ensure compliance with the applicable standards.

As the owner of this motorcycle, 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.

The Kawasaki Limited Emission Control System Warranty requires that you return your motorcycle to an authorized Kawasaki dealer for remedy under warranty. Please read the warranty carefully, and keep it valid by complying with the owner's obligations it contains.

You should keep a maintenance record for your motorcycle. To assist you in keeping this record, we have provided space on pages 170 through 178 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, bills, etc., as verification of this maintenance.

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(s) or any internal portion of the muffler(s).
* Removal of the air box or air box cover.
* Modifications to the muffler(s) or air intake system by cutting, drilling, or other means if such modifications result in increased noise levels.

Periodic Maintenance Chart

1. Periodic Inspection (Engine Related Items)

Frequency / Operation (Engine Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1 000 (mile × 1 000) 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
Air cleaner element - clean				●		●		●	103
Valve clearance - inspect				●		●		●	100
Throttle control system (play, smooth return, no drag) - inspect	year	●		●		●		●	105
Choke operation - inspect	year	●		●		●		●	107
Engine vacuum synchronization - inspect				●		●		●	108

Frequency / Operation (Engine Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1 000 (mile × 1 000) 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
Idle speed - inspect		●		●		●		●	108
K Fuel leak (fuel hose and pipe) - inspect	year	●		●		●		●	–
K Fuel hoses damage - inspect	year	●		●		●		●	–
K Fuel hoses installation condition - inspect	year	●		●		●		●	–
Coolant level - inspect		●		●		●		●	94
Coolant leak - inspect	year	●		●		●		●	92
Radiator hose damage - inspect	year	●		●		●		●	92

Frequency / Operation (Engine Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1 000 (mile × 1 000) 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
Radiator hoses installation condition - inspect	year	●		●		●		●	92
Air suction system damage - inspect				●		●		●	99
Evaporative emission control system - function (California model only)		●	●	●	●	●	●	●	98

2. Periodic Inspection (Chassis Related Items)

Frequency / Operation (Chassis Items)	Whichever comes first ⬇ / Every	➡ *Odometer Reading km × 1000 (mile × 1000) 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
Clutch and drive train:									
K Clutch operation (play, engagement, disengagement) - inspect		●		●		●		●	110
Drive chain lubrication condition - inspect #	every 600 km (400 mile)								119
Drive chain slack - inspect #	every 1 000 km (600 mile)								112
Drive chain wear - inspect #				●		●		●	117

Frequency / Operation (Chassis Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1000 (mile × 1000) → 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
K Drive chain guide wear - inspect				●		●		●	–
Wheels and tires:									
Tire air pressure - inspect	year			●		●		●	130
Wheels/tires damage - inspect				●		●		●	131
Tire tread wear, abnormal wear - inspect				●		●		●	131
K Wheel bearings damage - inspect	year			●		●		●	–

Frequency / Operation (Chassis Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1000 (mile × 1000) → 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
Brake system:									
Brake fluid leak - inspect	year	●	●	●	●	●	●	●	121
Brake hoses damage - inspect	year	●	●	●	●	●	●	●	121
Brake pad wear - inspect #			●	●	●	●	●	●	120
Brake hose installation condition - inspect	year	●	●	●	●	●	●	●	121
Brake fluid level - inspect	6 months	●	●	●	●	●	●	●	121

Frequency / Operation (Chassis Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1000 (mile × 1000) → 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
Brake operation (effectiveness, play, drag) - inspect	year	●	●	●	●	●	●	●	124
Brake light switch operation - inspect		●	●	●	●	●	●	●	125
Suspensions:									
Front forks/rear shock absorber operation (damping and smooth stroke) - inspect				●		●		●	127/128

Frequency / Operation (Chassis Items)	Whichever comes first ⬇ / Every	➡ *Odometer Reading km × 1000 (mile × 1000) 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
Front forks/rear shock absorber oil leak - inspect	year			●		●		●	127/128
Uni-trak rocker arm operation - inspect				●		●		●	–
Uni-trak tie rods operation - inspect				●		●		●	–
K Swingarm pivot - lubricate						●			–
Steering System:									
K Steering play - inspect	year	●		●		●		●	–

Frequency / Operation (Chassis Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1000 (mile × 1000) → 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
K Steering stem bearings - lubricate	2 years					●			–
Electrical System:									
Lights and switches operation - inspect	year			●		●		●	–
Headlight aiming - inspect	year			●		●		●	140
Side stand switch operation - inspect	year			●		●		●	–

Frequency / Operation (Chassis Items)	Whichever comes first ↓ / Every	*Odometer Reading km × 1000 (mile × 1000) 1 (0.6)	6 (3.75)	12 (7.5)	18 (11.25)	24 (15)	30 (18.75)	36 (22.5)	See Page
Engine stop switch operation - inspect	year			●		●		●	–
Chassis:									
Chassis parts - lubricate	year			●		●		●	144
Bolts and nuts tightness - inspect		●		●		●		●	152

3. Periodic Replacement

Frequency / Change/Replacement Items	Whichever comes first ⬇ / Every	➡ *Odometer Reading km × 1 000 (mile × 1 000) 1 (0.6)	12 (7.5)	24 (15)	36 (22.5)	48 (30)	See Page
Air cleaner element # - replace	2 year						101
Engine oil # - change	year	●	●	●	●	●	88
Oil filter - replace	year	●	●	●	●	●	88
K Fuel hoses - replace	4 year					●	–
K Coolant - change	3 years				●		96
K Radiator hoses and O-rings - replace	3 years				●		–
K Brake hoses – replace	4 years					●	–
K Brake fluid (front and rear) - change	2 years			●		●	124

Frequency / Change/Replacement Items	Whichever comes first ⬇ / Every	➡ *Odometer Reading km × 1 000 (mile × 1 000)					See Page
		1 (0.6)	12 (7.5)	24 (15)	36 (22.5)	48 (30)	
K Rubber parts of master cylinder and caliper - replace	4 years					●	–
Spark plug - replace			●	●	●	●	97

K: Should be serviced by an authorized Kawasaki dealer.
*: For higher odometer readings, repeat at the frequency interval established here.
#: Service more frequently when operating in severe conditions: dusty, wet, muddy, high speed, or frequent starting/stopping.

Engine Oil

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

⚠ 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.

Oil Level Inspection

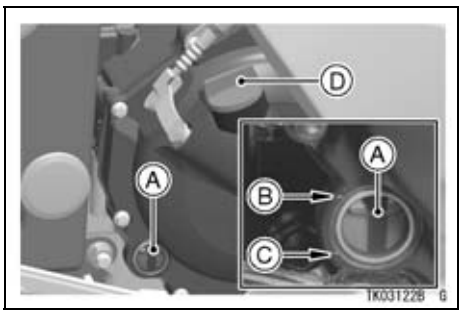
- If the oil has just been changed, start the engine and run it for several minutes at idle speed. This fills the oil filter with oil. Stop the engine, then wait several minutes until the oil settles.

NOTICE

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

- If the motorcycle has just been used, wait several minutes for all the oil to drain down.

- Check the engine oil level through the oil level gauge. With the motorcycle held level, the oil level should come up between the upper and lower level lines next to the gauge.

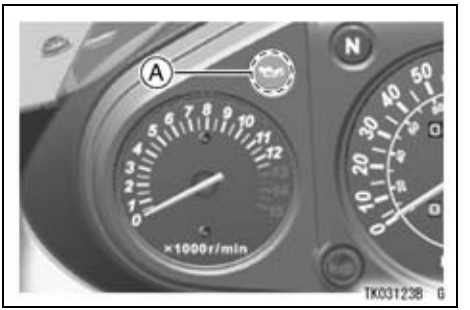


A. Oil Level Gauge
B. Upper Level Line
C. Lower Level Line
D. Oil Filler Cap

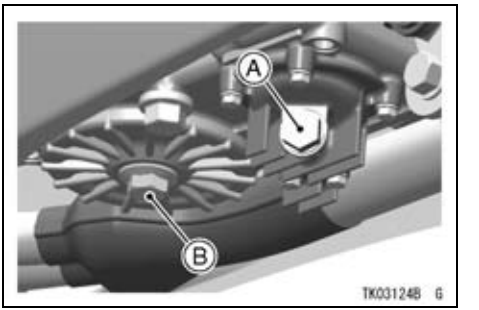
- If the oil level is too high, remove the excess oil through the oil filler opening using a syringe or some other suitable device.
- If the oil level is too low, add the oil to reach the correct level. Use the same type and brand of oil that is already in the engine.

NOTICE

If the engine oil gets extremely low or if the oil pump does not function properly or oil passages are clogged, the warning light will light. If it stays on when the engine speed is above idle, stop the engine immediately and have it serviced. Failure to do so could cause serious engine damage.



A. Oil Pressure Warning Light



A. Engine Oil Drain Plug
B. Oil Filter Mounting Bolt

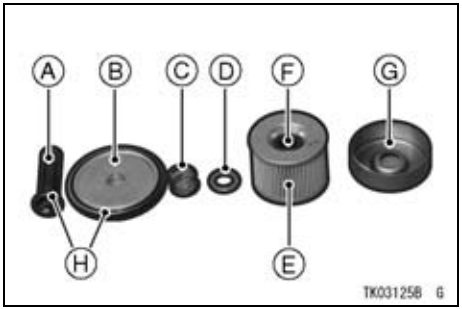
Oil and/or Oil Filter Change

- Warm up the engine thoroughly, and then stop it.
- Place an oil pan beneath the engine.
- Remove engine oil drain plug.
- Let the oil completely drain with the motorcycle perpendicular to the ground.

⚠ WARNING

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

- If the oil filter is to be replaced, remove the oil filter mounting bolt and drop out the oil filter.
- Replace the oil filter element with a new one.



A. Mounting Bolt
B. Filter Cover
C. Spring
D. Flat Washer
E. Element
F. Grommet
G. Element Fence
H. O-Ring

NOTE

- *Replace the O-rings with new ones.*
- *When installing the oil filter, make sure the O-rings are in place.*

- Apply a little engine oil to the O-ring on the filter mounting bolt, fit the filter cover on the bolt, and install the spring and flat washer.
- Apply a little engine oil to the grommets on both sides of the element, and turn the filter to work the element into place. Be careful that the element grommets do not slip out of place.
- Install the element fence on the bolt.
- Install the oil filter, tightening its mounting bolt to the specified torque.
- After the oil has completely drained out, install the engine oil drain plug with a new gasket. Proper torque for it is shown in the table.

NOTE

○ *Replace any gasket with a new one.*

- Fill the engine up to the upper level line with a good quality engine oil specified in the table.
- Start the engine.
- Check the oil level and for oil leakage.

Tightening Torque

Engine Oil Drain Plug: 19.6 N·m (2.0 kg·m, 14.5 ft·lb)
Oil Filter Mounting Bolt: 19.6 N·m (2.0 kg·m, 14.5 ft·lb)

NOTE

○ *If a torque wrench is not available, this item should be serviced by a Kawasaki dealer.*

Recommended Engine Oil

Type:	API SG, SH, SJ, SL or SM with JASO MA, MA1 or MA2
Viscosity:	SAE 10W-40

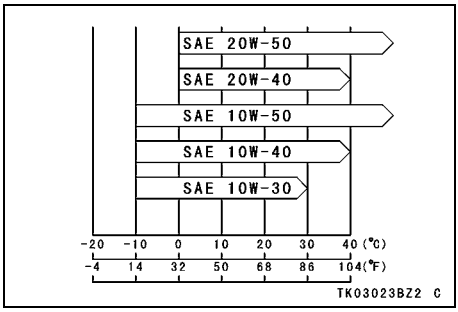
NOTE

○ *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:	1.3 L (1.4 US qt) [when filter is not removed] 1.6 L (1.7 US qt) [when filter is removed] 1.7 L (1.8 US qt) [when engine is completely dry]

Although 10W-40 engine oil is the recommended oil for most conditions, the oil viscosity may need to be changed to accommodate atmospheric conditions in your riding area.



Cooling System

Radiator and Cooling Fan -

Check the radiator fins for obstruction by insects or mud. Clean off any obstructions with a stream of low-pressure water.

⚠ WARNING

Keep your hands and clothing away from the fan blades at all times.

NOTICE

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

Radiator Hoses -

Check the radiator hoses for leakage, cracks or deterioration, and connections for leakage or looseness each day before riding the motorcycle, and in accordance with the Periodic Maintenance Chart.

Coolant -

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

Information for Coolant

To protect the cooling system (consisting of the aluminum engine and radiator) from rust and corrosion, the use of corrosion and rust inhibitor chemicals in the coolant is essential. If coolant containing corrosion and rust inhibitor chemicals is not used, over a period of time, the cooling system accumulates rust and scale in the water jacket and radiator. This will clog up the coolant passages, and considerably reduce the efficiency of the cooling system.

⚠ WARNING

Coolant containing corrosion inhitors for alminum engines and radiators include harmful chemicals for human body. Drinking coolant can result in serious injury or death. Use coolant in accordance with the instractions of the manufacturer.

Soft or distilled water must be used with the antifreeze (see below for antifreeze) in the cooling system.

NOTICE

If hard water is used in the system, it causes scale accumulation in the water passages, and considerably reduces the efficiency of the cooling system.

If the lowest ambient temperature encountered falls below the freezing point of water, use permanent antifreeze in the coolant to protect the cooling system against engine and radiator freeze -up, as well as from rust and corrosion.

Use a permanent type of antifreeze (soft water and ethylene glycol plus corrosion and rust inhibitor chemicals for aluminum engines and radiators) in the cooling system. On the mixture ratio of coolant, choose the suitable one referring to the relation between freezing point and strength directed on the container.

NOTICE

Permanent types of antifreeze on the market have anti-corrosion and anti-rust properties. When it is diluted excessively, it loses its anti-corrosion property. Dilute a permanent type of antifreeze in accordance with the instructions of the manufacturer.

NOTE

○ *A permanent type of antifreeze is installed in the cooling system when shipped. It is colored green and contains ethylene glycol. It is mixed at 50% and has the freezing point of –35°C (–31°F).*

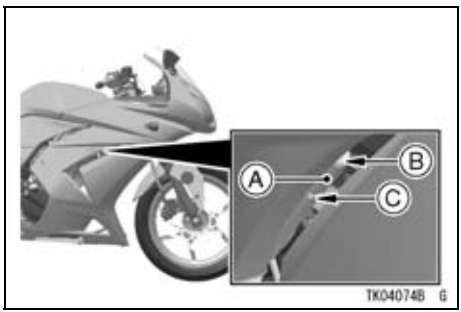
Coolant Level Inspection

- Situate the motorcycle so that it is perpendicular to the ground.

- Check the coolant level if it is between the F (Full) and L (Low) level lines.

NOTE

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

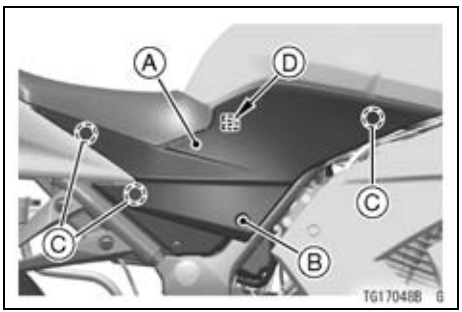


A. Reserve Tank
B. F (Full) Level Line
C. L (Low) Level Line

- If the amount of coolant is insufficient, remove the right side cover and add coolant into the reserve tank.

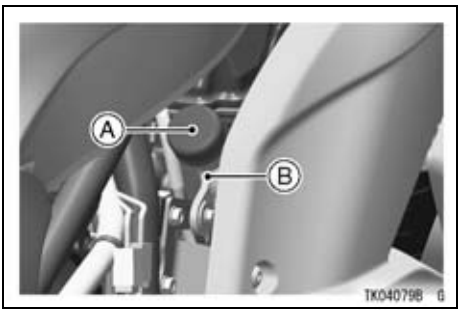
Coolant Filling

- Remove the right side cover by removing the bolt.



A. Right Side Cover
B. Bolt
C. Projections

- Remove the cap from the reserve tank and add coolant through the filler opening to the F (Full) level line.



A. Cap
B. Reserve Tank

- Install the cap.
- Install the right side cover and tighten the bolt.

NOTE

○ *In an emergency you can add water alone to the coolant reserve tank, however it must be returned to the correct mixture ratio by the addition of antifreeze concentrate as soon as possible.*

NOTICE

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

Coolant Change

Have the coolant changed by an authorized Kawasaki dealer.

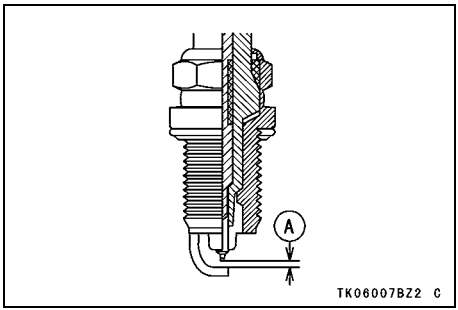
Spark Plugs

The standard spark plug is shown in the table. The spark plugs should be replaced in accordance with the Periodic Maintenance Chart.

Spark plug removal should be done only by a competent mechanic following the instructions in the Service Manual.

Spark Plug

Standard Plug	ND U24ESR-N NGK CR8E
Plug Gap	0.7 ~ 0.8 mm (0.028 ~ 0.032 in.)
Tightening Torque	13 N·m (1.3 kgf·m, 10 ft·lb)



A. Plug Gap

NOTICE

For cold weather and/or low speed riding, a hotter spark plug shown in the table may be used for quicker warm-ups and more efficient engine operation. However, for normal temperatures and/or high speed use, the standard spark plug must be used to prevent engine damage.

Hotter Spark Plug

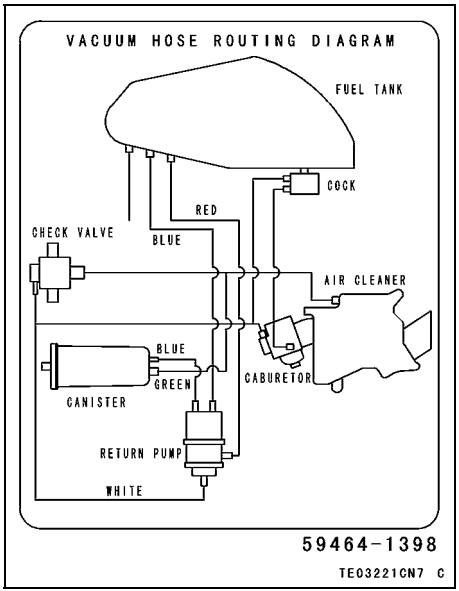
NGK CR7E or ND U22ESR-N

Evaporative Emission Control System (California model only)

This system routes fuel vapors from the fuel system into the running engine or stores the vapors in a canister when the engine is stopped. Although no adjustments are required, a thorough visual inspection must be made at the intervals specified by the Periodic Maintenance Chart.

Inspection

- Check that the hoses are securely connected.
- Replace any kinked, deteriorated, or damaged hoses.



Kawasaki Clean Air System

The Kawasaki Clean Air System (KCA) is a secondary air suction system that helps the exhaust gases to burn more completely. When the spent fuel charge is released into the exhaust system, it is still hot enough to burn. The KCA System allows extra air into the exhaust system so that the spent fuel charge can continue to burn. This continued burning action tends to burn up a great deal of the normally unburned gases, as well as changing a significant portion of the carbon monoxide into carbon dioxide.

Air Suction Valves -

The air suction valve is essentially a check valve which allows fresh air to flow only from the air cleaner into the exhaust port. Any air that has passed the air suction valve is prevented from returning. Inspect the air suction valves

in accordance with the Periodic Maintenance Chart. Also, inspect the air suction valves whenever stable idling cannot be obtained, engine power is greatly reduced, or there are abnormal engine noises.

Air suction valve removal and inspection should be done only by a competent mechanic following the instructions in the Service Manual.

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 performance, 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 only by a competent mechanic following the instructions in the Service Manual.

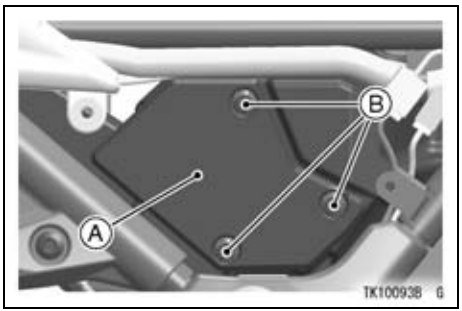
Air Cleaner

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

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

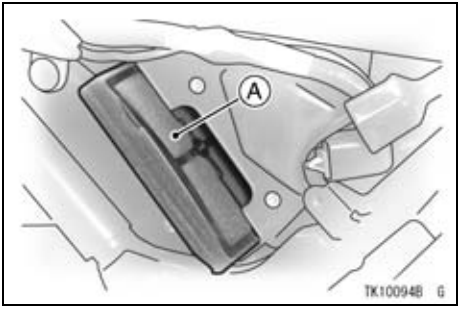
Element Removal

- Remove the right side cover.
- Unscrew the air cleaner element cap mounting bolts, then remove the air cleaner element cap.



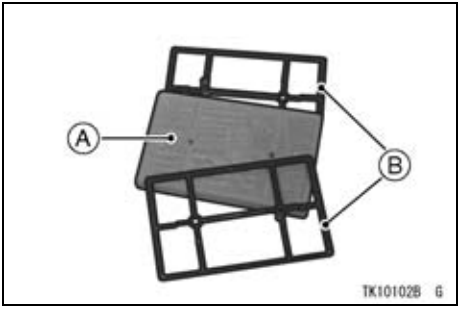
A. Air Cleaner Element Cap
B. Mounting Bolts

- Pull out the air cleaner element from the air cleaner housing.



A. Element

- Remove the element from the frame.



A. Element
B. Frame

- Push a clean, lint-free towel into the air cleaner housing to keep dirt or other foreign material from entering.
- Inspect the element material for damage. If any part of the element is damaged, the element must be replaced.

⚠ WARNING

If dirt or dust is allowed to pass through into the carburetor, the throttle may stick or become inoperable resulting in a hazardous operating condition.

NOTICE

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

NOTE

○ *Element installation is performed in the reverse order of removal.*

Element Cleaning

- Clean the element in a bath of a high flash-point solvent.
- Dry the element with compressed air or by squeezing it.
- After cleaning, saturate the element with SE, SF or SG class SAE 30W motor oil, squeeze out the excess oil, then wrap it in a clean rag and squeeze it as dry as possible. Be careful not to tear the element.

⚠ WARNING

Gasoline and low flash-point solvents are extremely flammable and may explode, causing severe burns. Do not use gasoline or a low flash-point solvent to clean the element. Clean the element in a well-ventilated area. Be sure there are no sparks or flame in the work area, including any appliance with a pilot light.

Dust and/or Water Inspection

- Inspect the transparent drain cap located at the left lower end of the air cleaner housing to see if any oil has run down from the air cleaner housing.



A. Drain Cap

- If there are any oil in the drain cap, remove the cap from the lower end of the air cleaner housing and drain the oil.

⚠ WARNING

Oil on tires will make them slippery and can cause an accident and injury. Be sure to install the drain cap after draining.

Throttle Control System

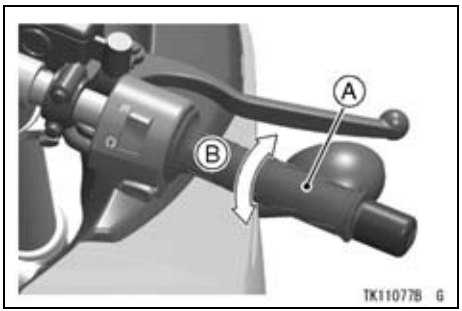
Check the throttle grip play in accordance with the Periodic Maintenance Chart, and adjust it if necessary.

Throttle Grip -

The throttle grip controls the butterfly valves in the carburetor. If the throttle grip has excessive play due to either cable stretch or maladjustment, it will cause a delay in throttle response, especially at low engine speed. Also, the throttle valve may not open fully at full throttle. On the other hand, if the throttle grip has not play, the throttle will be hard to control, and the idle speed will be erratic.

Inspection

- Check that the throttle grip play is correct by lightly turning the throttle grip back and forth.



A. Throttle Grip
B. Throttle Grip Play

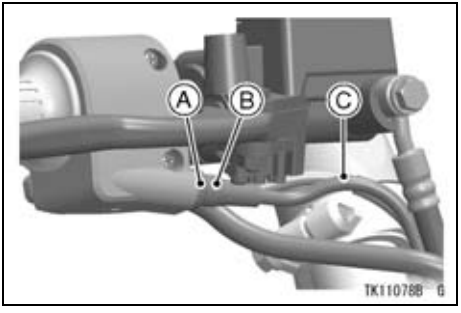
Throttle Grip Play

2 ~ 3 mm (0.08 ~ 0.12 in.)

- If there is improper play, adjust it.

Adjustment

- Loosen the locknut at the throttle grip, and turn the adjuster until the proper amount of throttle grip play is obtained.



A. Locknut
B. Adjuster
C. Throttle Cable (Accelerator Cable)

- If the throttle cables cannot be adjusted with the adjuster, further adjustment of the throttle cables should be done only by a competent mechanic following the instructions in the Service Manual.
- With the engine idling, turn the handlebar to each side. If handlebar movement changes the idle speed, the throttle cables may be improperly adjusted or in correctly routed, or they may be damaged. Be sure to correct any of these conditions before riding.

⚠ WARNING

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

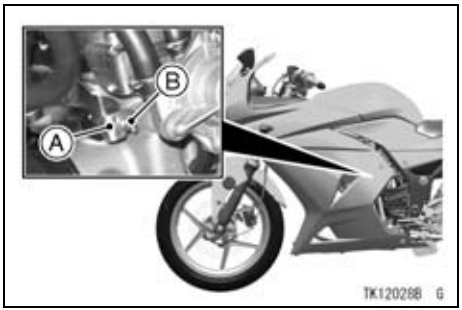
Choke Lever

By pulling the choke lever, the carburetor provides a rich starting mixture that is necessary to enable easy starting when the engine is cold.

If starting difficulty or rich fuel mixture trouble occurs, inspect the choke lever, and adjust it if necessary.

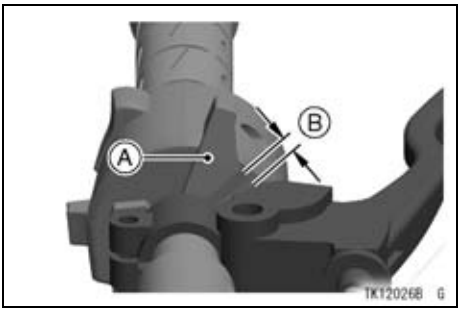
Inspection

- Check that the choke lever returns properly and that the inner cable slides smoothly. If there is any irregularity, have the choke cable checked by an authorized Kawasaki dealer.
- Push the choke lever back all the way.
- Determine the amount of choke cable play at the choke lever. Pull the choke lever until the starter plunger lever at the carburetor touches the starter plunger; the amount of choke lever travel is the amount of cable play.



A. Starter Plunger Lever
B. Stater plunger

- The proper amount of play is 2 ~ 3 mm (0.08 ~ 0.12 in.) at the bottom of the choke lever. If there is too much or too little play, have the choke cable adjusted only by a competent mechanic following the instructions in the Service Manual.



A. Choke Lever
B. 2 ~ 3 mm (0.08 ~ 0.12 in.)

Carburetors

The carburetor adjustments, idle speed and synchronization, should be performed in accordance with the Periodic Maintenance Chart or whenever the idle speed is disturbed.

The following procedure covers the idle speed adjustment. Carburetor synchronization should be done by an authorized Kawasaki dealer.

NOTE

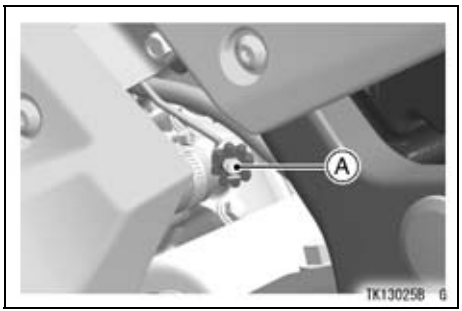
○ *Poor carburetor synchronization will cause unstable idling, sluggish throttle response, and reduced engine power and performance.*

Adjustment

- Start the engine, and warm it up thoroughly.
- Adjust the idle speed by turning the idle adjusting screw.

Idle Speed

1 250 ~ 1 350 r/min (rpm)



A. Idle Adjusting Screw

- Open and close the throttle a few times to make sure that the idle speed does not change. Readjust if necessary.
- With the engine idling, turn the handlebar to each side. If handlebar movement changes the idle speed, the throttle cables may be improperly adjusted or incorrectly routed, or they may be damaged. Be sure to correct any of these conditions before riding.

⚠ WARNING

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

Clutch

Due to friction plate wear and clutch cable stretch over a long period of use, the clutch operation should be checked each day before riding the motorcycle, and in accordance with the Periodic Maintenance Chart.

⚠ WARNING

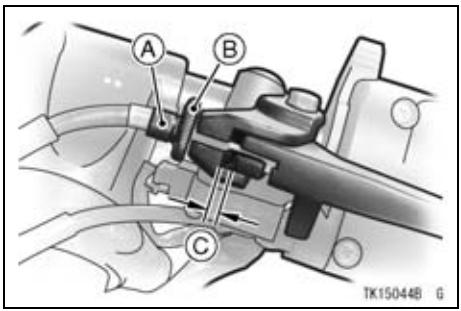
The engine and exhaust system get extremely hot during normal operation and can cause serious burns. Never touch a hot engine or an exhaust pipe during clutch adjustment.

Inspection

- Check that the clutch lever operates properly and that the inner cable slides smoothly. If there is any irregularity, have the clutch cable checked by an authorized Kawasaki dealer.
- Check the clutch lever play as shown in the figure.

Clutch Lever Play

2 ~ 3 mm (0.08 ~ 0.12 in.)



A. Adjuster
B. Locknut
C. Clutch Lever Play

If the play is incorrect, adjust the lever play as follows.

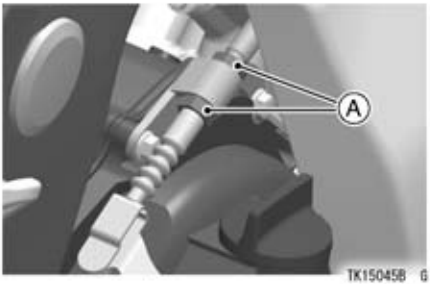
Adjustment

- Loosen the locknut at the clutch lever.
- Turn the adjuster so that the clutch lever will have the specified free play.

⚠ 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.

- Tighten the locknut.
- If it cannot be done, use the mounting nuts at the lower end of the cable.



A. Nuts

NOTE

○ *After the adjustment is made, start the engine and check that the clutch does not slip and that it releases properly.*

Drive Chain

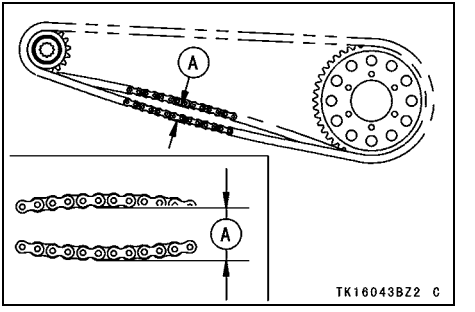
The drive chain slack and lubrication must be checked each day before riding the motorcycle, and in accordance with the Periodic Maintenance Chart for safety and to prevent excessive wear. If the chain becomes badly worn or maladjusted - either too loose or too tight - the chain could jump off the sprockets 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.
- Rotate the rear wheel to find the position where the chain is tightest, and measure the maximum chain slack by pulling up and pushing down the chain midway between the engine sprocket and rear wheel sprocket.



A. Chain Slack

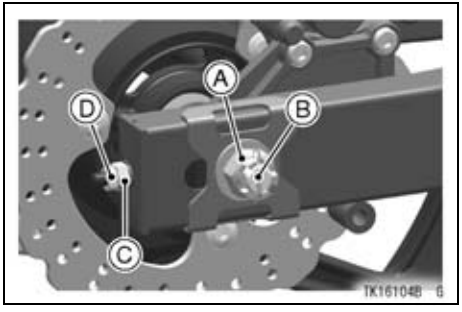
- If the drive chain is too tight or too loose, adjust it so that the chain slack will be within the standard value.

Drive Chain Slack

Standard	20 ~ 30 mm (0.8 ~ 1.2 in.)

Chain Slack Adjustment

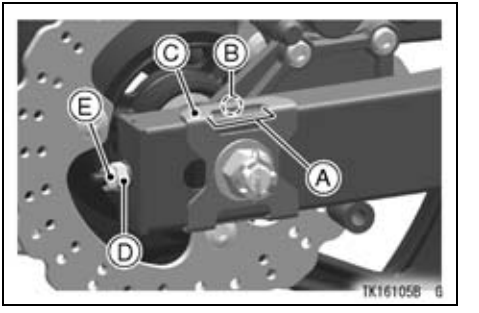
- Loosen the left and right chain adjuster locknuts.
- Remove the cotter pin, and loosen the rear axle nut.



A. Axle Nut
B. Cotter Pin
C. Adjusting Nut
D. Locknut

- If the chain is too loose, turn in the left and right chain adjusting nuts evenly.

- If the chain is too tight, turn out the left and right chain adjusting nuts evenly.
- Turn both chain adjusting nuts evenly until the drive chain has the correct amount of slack.
- To keep the chain and wheel properly aligned, the notch on the left wheel alignment indicator should align with the same swingarm mark that the right indicator notch aligns with.



A. Marks
B. Notch
C. Indicator
D. Adjusting Nut
E. Locknut

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 rear axle nut to the specified torque.

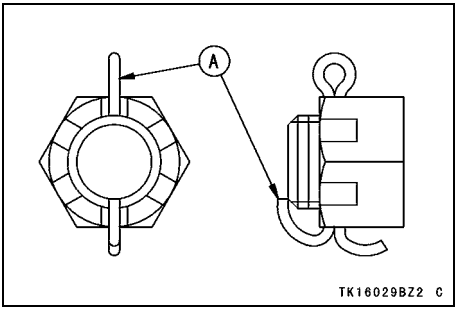
Tightening Torque

Axle Nut:
98 N·m (10 kgf·m, 72 ft·lb)

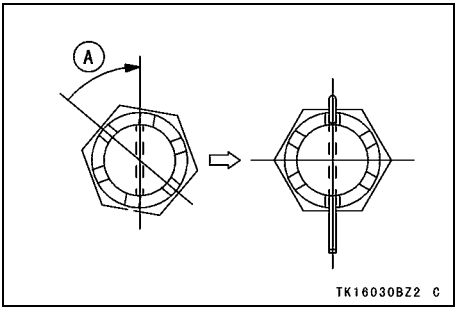
NOTE

○ *If a torque wrench is not available, this item should be serviced by a Kawasaki dealer.*

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



A. Cotter Pin



A. Turning Clockwise

NOTE

- *When inserting the cotter pin, if the slots in the nut do not align with the cotter pin hole in the axle shaft, tighten the nut clockwise up to the next alignment.*
- *It should be within 30 degree.*
- *Loosen once and tighten again when the slot goes past the nearest hole.*

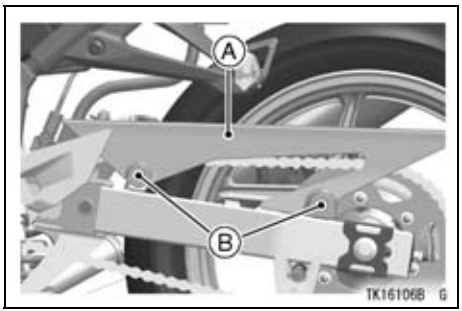
⚠ WARNING

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

- Check the rear brake (see the Brakes section).

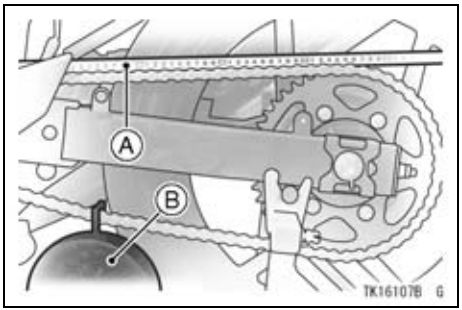
Wear Inspection

- Remove the bolts to take off the chain cover.



A. Chain Cover
B. Bolts

- Stretch the chain taut either by using the chain adjusters, or by hanging a 10 kg (20 lb) weight on the chain.
- Measure the length of 20 links on the straight part of the chain from pin center of the 1st pin to pin center of the 21st pin. Since the chain may wear unevenly, take measurements at several places.
- If the length exceeds the service limit, the chain should be replaced.



A. Measure
B. Weight

Drive Chain 20-Link Length

Service Limit

323 mm (12.7 in.)

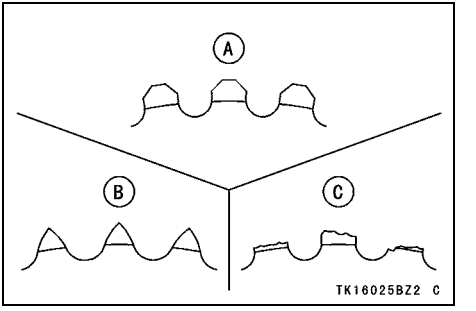
⚠ WARNING

For safety, use only the standard chain. It is an endless type and should not be cut for installation; have it installed by an authorized Kawasaki dealer.

- Rotate the rear wheel to inspect the drive chain for damaged rollers, and loose pins and links.
- Also inspect the sprockets for unevenly or excessively worn teeth, and damaged teeth.

NOTE

○ *Sprocket wear is exaggerated for illustration. See Service Manual for wear limits.*

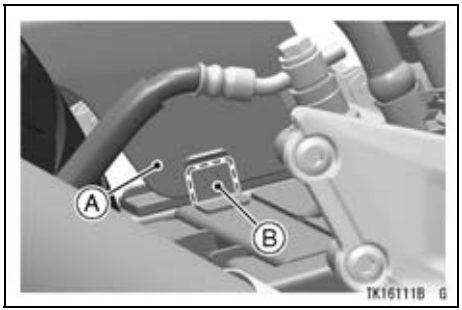


A. Good Teeth
B. Worn Teeth
C. Damaged Teeth

- If there is any irregularity, have the drive chain and/or the sprockets replaced by an authorized Kawasaki dealer.

NOTE

○ *When installing the chain cover, insert the chain cover to the groove, and tighten the bolts.*

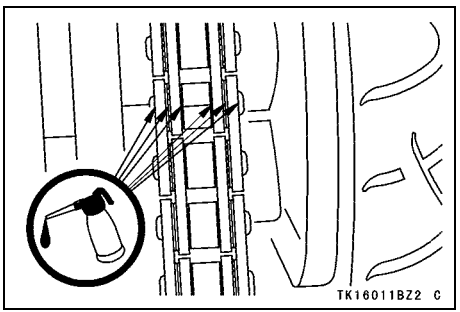


A. Chain Cover
B. Groove

Lubrication

Lubrication is also necessary after riding through rain or on wet roads, or any time that the chain appears dry. A heavy oil such as SAE 90 is preferred to a lighter oil because it will stay on the chain longer and provide better lubrication.

- Apply oil to the sides of the rollers so that it will penetrate to the rollers and bushings. Apply oil to the O-rings so that the O-rings will be coated with oil. Wipe off any excess oil.

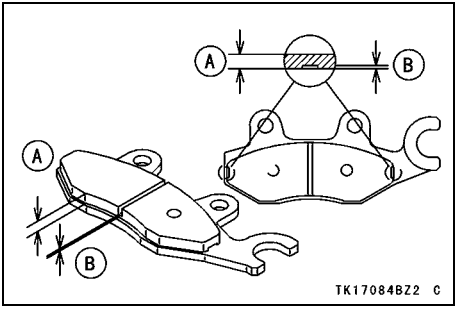


- If the chain is especially dirty, clean it using diesel oil or kerosine and then apply oil as mentioned above.

Brakes

Brake Wear Inspection

Inspect the brakes for wear. For each front and rear disc brake caliper, if the thickness of either pad is less than 1 mm (0.04 in.), replace both pads in the caliper as a set. Pad replacement should be done by an authorized Kawasaki dealer.



A. Lining Thickness
B. 1 mm (0.04 in.)

Disc Brake Fluid -

In accordance with the Periodic Maintenance Chart, inspect the brake fluid level in both the front and rear brake fluid reservoirs and change the brake fluid. The brake fluid should also be changed if it becomes contaminated with dirt or water.

Fluid Requirement

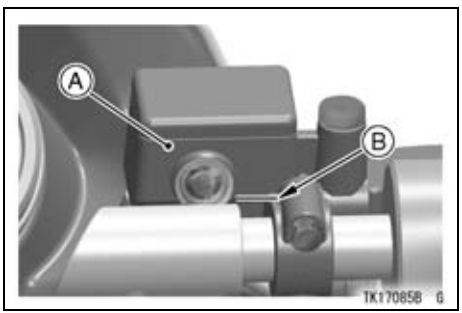
Use heavy-duty brake fluid only from a container marked DOT4.

NOTICE

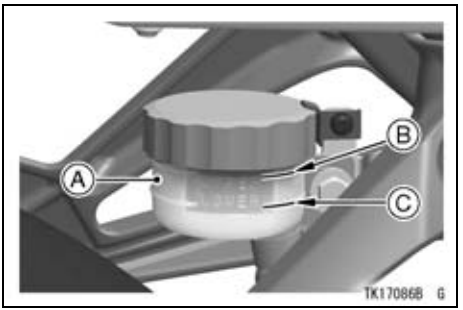
Do not spill brake fluid onto any painted surface.
Do not use fluid from a container that has been left open or that has been unsealed for a long time.
Check for fluid leakage around the fittings.
Check brake hose for damage.

Fluid Level Inspection

- The brake fluid level in the front brake fluid reservoir must be kept above the line (lower level line) next to the gauge and that in the rear brake fluid reservoir (located near the rear fender) must be kept between the upper and lower level lines (reservoirs held horizontal).

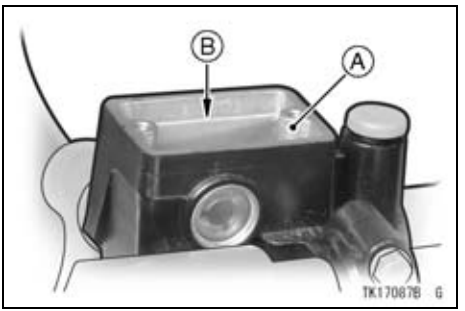


A. Front Brake Fluid Reservoir
B. Lower Level Line



A. Rear Brake Fluid Reservoir
B. Upper Level Line
C. Lower Level Line

- If the fluid level in either reservoir is lower than the lower level line, check for fluid leaks in the brake lines, and fill the reservoir to the upper level line. Inside the front brake fluid reservoir is a stepped line showing the upper level line.



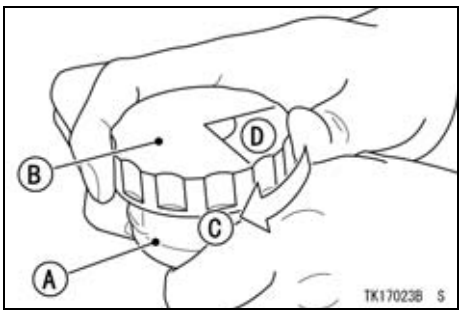
A. Front Brake Fluid Reservoir
B. Upper Level Line

⚠ WARNING

Mixing brands and types of brake fluid can reduce the brake system's effectiveness and cause an accident resulting in injury or death. Do not mix two brands of brake fluid. Change the brake fluid in the brake line completely if the brake fluid must be refilled but the type and brand of the brake fluid that is already in the reservoir are unidentified.

NOTE

○ *First, tighten until slight resistance is felt indicating that the cap is seated on the reservoir body; then, tighten the cap an additional 1/6 turn while holding the brake fluid reservoir body.*



A. Reservoir
B. Cap
C. Clockwise
D. 1/6 turn

Fluid Change

Have the brake fluid changed by an authorized Kawasaki dealer.

Front and Rear Brakes -

Disc and disc pad wear is automatically compensated for and has no effect on the brake lever or pedal action. So there are no parts that require adjustment on the front brakes and rear brakes.

⚠ WARNING

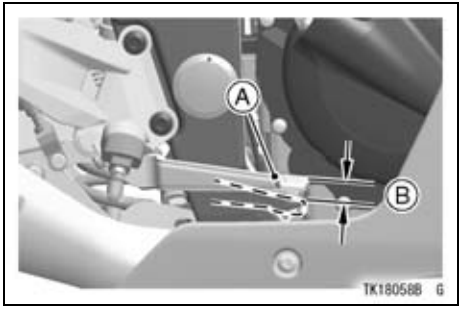
Air in the brake lines diminish braking performance and can cause an accident resulting in injury or death. If the brake lever or pedal feels mushy when it is applied, there might be air in the brake lines or the brake may be defective. Have the brake checked immediately by an authorized Kawasaki dealer.

Brake Light Switches

When either the front or rear brake is applied, the brake light goes on. The front brake light switch requires no adjustment, but the rear brake light switch should be adjusted in accordance with the Periodic Maintenance Chart.

Inspection

- Turn the ignition key to “ON”.
- The brake light should go on when the front brake is applied.
- If it does not, ask your authorized Kawasaki dealer to inspect the front brake light switch.
- Check the operation of the rear brake light switch by depressing the brake pedal. The brake light should go on after the proper pedal travel.



A. Brake Pedal
B. Pedal Travel

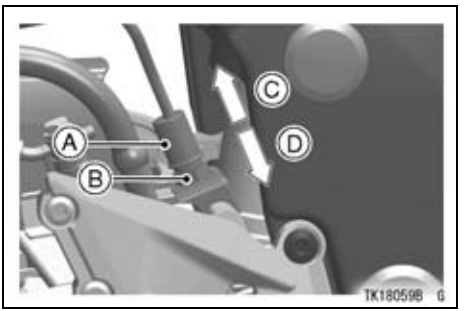
- If it does not, adjust the rear brake light switch.

Brake Pedal Travel

10 mm (0.4 in.)

Adjustment

- To adjust the rear brake light switch, move the switch up or down by turning the switch body.



A. Rear Brake Light Switch
B. Adjusting Nut
C. Lights sooner
D. Lights later

NOTICE

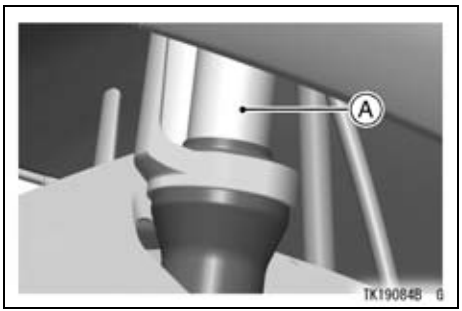
To avoid damaging the electrical connections inside the switch, be sure that the switch body does not turn during adjustment.

Front Fork

The front fork operation and oil leakage should be checked in accordance with the Periodic Maintenance Chart.

Front Fork Inspection

- Holding the brake lever, pump the front fork up and down by several times for inspection of smooth stroke.
- Visually inspect the front fork for oil leakage, scoring or scratches on the outer surface of the inner tube.
- If any doubt about the front fork, it should be done by an authorized Kawasaki dealer.



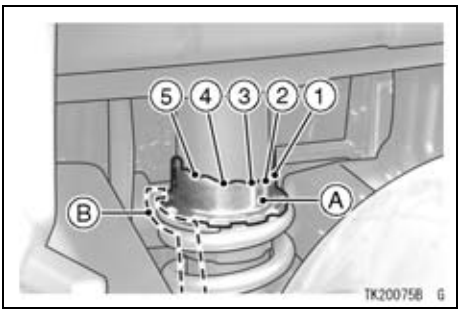
A. Inner Tube

Rear Shock Absorbers

The rear shock absorber operation and oil leakage should be checked in accordance with the Periodic Maintenance Chart.

Spring Preload Adjustment

The spring preload adjuster on the rear shock absorber has 5 positions.



A. Spring Preload Adjuster
B. Wrench

- In accordance with the following table, turn the preload adjuster with the wrench from the tool kit.

NOTE

○ *When turning the preload adjuster with the wrench, remove the chain cover.*

Position	1	2	3	4	5
Spring Action	Stronger ——→				

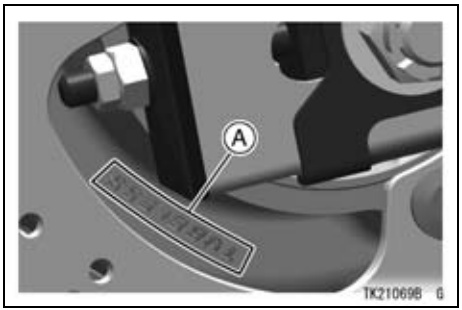
The standard setting position for an average-build rider of 68 kg (150 lb) with no passenger and no accessories is No. 1.

Wheels

Tubeless tires are installed on the wheels of this motorcycle. The indications of TUBELESS on the tire side wall and the rim show that the tire and rim are specially designed for tubeless use.



A. TUBELESS Mark



A. TUBELESS Mark

The tire and rim form a leakproof unit by making airtight contacts at the tire chamfers and the rim flanges instead of using an inner tube.

⚠ WARNING

Installing a tube inside a tubeless-type tire can create excessive heat build up that can damage the tube and cause rapid deflation. The tires, rims, and air valves on this motorcycle are designed only for tubeless type wheels. The recommended standard tires, rims, and air valves must be used for replacement. Do not install tube-type tires on tubeless rims. The beads may not seat properly on the rim causing tire deflation. Do not install a tube inside a tubeless tire. Excessive heat build-up may damage the tube causing tire deflation.

Tires -

Payload and Tire Pressure

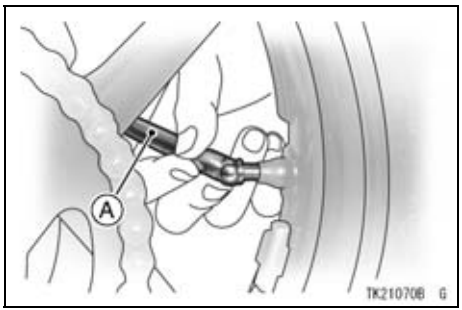
Failure to maintain proper inflation pressures or observe payload limits for your tires may adversely affect handling and performance of your motorcycle and can result in loss of control. The maximum recommended load in addition to vehicle weight is 170 kg (375 lb), including rider, passenger, baggage, and accessories.

- Remove the air valve cap.
- Check the tire pressure often, using an accurate gauge.
- Make sure to install the air valve cap securely.

NOTE

○ *Measure the tire pressure when the tires are cold (that is, when the motorcycle has not been ridden more than a mile during the past 3 hours).*

○ *Tire pressure is affected by changes in ambient temperature and altitude, and so the tire pressure should be checked and adjusted when your riding involves wide variations in temperature or altitude.*



A. Tire Pressure Gauge

Tire Air Pressure (when cold)

Front	200 kPa (2.00 kgf/cm², 28 psi)
Rear	225 kPa (2.25 kgf/cm², 32 psi)

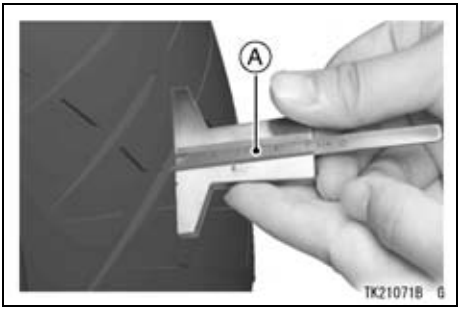
Tire Wear, Damage

As the tire tread wears down, the tire becomes more susceptible to puncture and failure. An accepted estimate is that 90% of all tire failures occur during the last 10% of tread life (90 % worn). So it is false economy and unsafe to use the tires until they are bald.

- In accordance with the Periodic Maintenance Chart, measure the depth of the tread with a depth gauge, and replace any tire that has worn down to the minimum allowable tread depth.

Minimum Tread Depth

Front	———	1 mm (0.04 in.)
Rear	Under 130 km/h (80 mph)	2 mm (0.08 in.)
	Over 130 km/h (80 mph)	3 mm (0.12 in.)



A. Tire Depth Gauge

- Visually inspect the tire for cracks and cuts, replacing the tire in case of bad damage. Swelling or high spots indicate internal damage, requiring tire replacement.
- Remove any imbedded stones or other foreign particles from the tread.

NOTE

○ *Have the wheel balance inspected whenever a new tire is installed.*

⚠ WARNING

Tires that have been punctured and repaired do not have the same capabilities as undamaged tires and can suddenly fail, causing an accident resulting in serious injury or death. Replace damaged tires as soon as possible. To ensure safe handling and stability, use only the recommended standard tires for replacement, inflated to the standard pressure. If it is necessary to ride on a repaired tire, do not exceed 100 km/h (60 mph) until the tire is replaced.

NOTE

○ *When operating on public roadways, keep maximum speed under traffic law limits.*

Standard Tire (Tubeless)

Front	Size: 110/70-17 M/C 54S IRC “RX-01F” TL Size: 110/70-17 M/C 54H BRIDGESTONE “BT-45F” TL DUNLOP “GT501FG” TL
Rear	Size: 130/70-17 M/C 62S IRC “RX-01R” TL Size: 130/70-17 M/C 62H BRIDGESTONE “BT-45R” TL DUNLOP “GT501R” TL

⚠ WARNING

Mixing tire brands and types can adversely affect handling and cause an accident resulting in injury or death. Always use the same manufacturer’s tires on both front and rear wheels.

⚠ WARNING

New tires are slippery and may cause loss of control and injury. A break-in period of 160 km (100 miles) is necessary to establish normal tire traction. During break-in, avoid sudden and maximum braking and acceleration, and hard cornering.

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 temperatures rise, so does the discharge rate. Every 15°C (27°F) doubles the rate.

Electrical accessories, such as digital clocks and computer memory, also draw current from the battery even when the key is switched off. Combine such "key-off" draws with hot temperature, and a battery can go from fully charged to completely discharged in a matter of days.

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 temperatures 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 12.8 volts, the battery should be charged using an appropriate charger (check with your 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.

Kawasaki-recommended chargers are:

OptiMate III
Yuasa 1.5 Amp Automatic charger
Battery Mate 150-9

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

For more details, ask your 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 that is 1/10th of the battery capacity. For

example, the charging rate for a 10 Ah battery would be 1.0 ampere.
- The charger will keep the battery fully charged until you are ready to re-install 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.

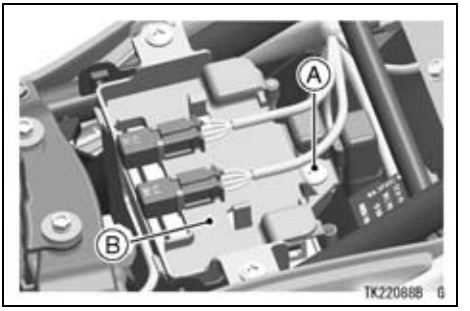
NOTE

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

⚠ WARNING

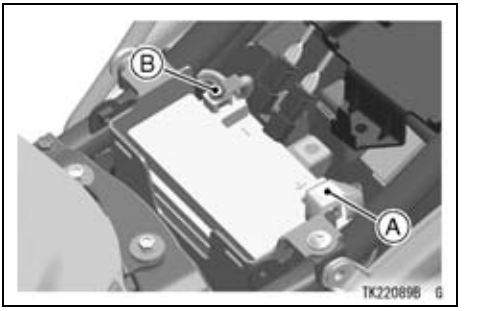
Battery posts, terminals and related accessories contain lead and lead compounds. Wash hands after handling.

Battery Removal
- Remove the bolts and the left and right side covers.
- Remove the rider's seat.
- Unscrew the cover screw and pull up the cover.



A. Cover Screw
B. Cover

- Disconnect the wires from the battery, first from the (–) terminal and then the (+) terminal.



A. (+) Terminal
B. (–) Terminal

- Take the battery out of the case.
- Clean the battery using a solution of baking soda and water. Be sure that the wire connections are clean.

Battery Installation

- Place the battery in the battery case.
- Connect the capped wire to the (+) terminal, and then connect the black wire to the (–) terminal.

NOTE

○ *Install the battery in the reverse order of the Battery Removal.*

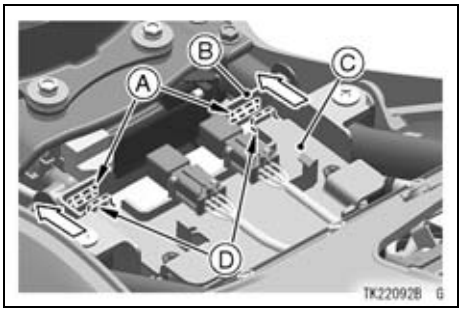
NOTICE

Installing the (–) wire to the (+) terminal of the battery or the (+) wire to the (–) terminal of the battery can seriously damage the electrical system.

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

NOTE

○ *When installing the battery cover, insert tabs of the battery cover into slots of the battery case and tighten the screw.*



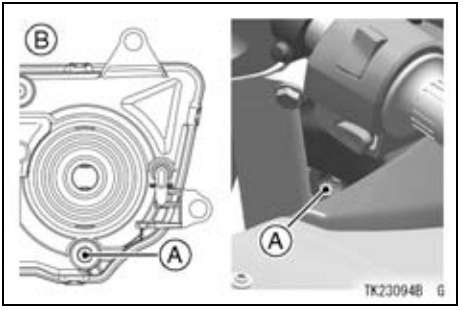
A. Slots
B. Battery Case
C. Cover
D. Tabs

Headlight Beam

Horizontal Adjustment

The headlight beam is adjustable horizontally. If not properly adjusted horizontally, the beam will point to one side rather than straight ahead.

- Turn the horizontal adjuster clockwise or counterclockwise until the beam points straight ahead.

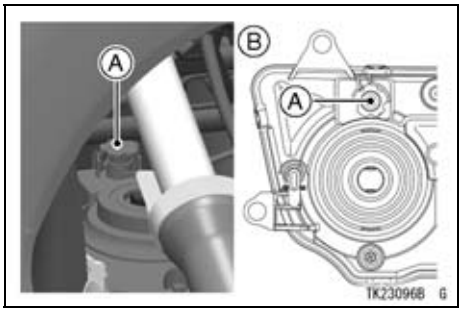


A. Horizontal Adjuster
B. View From Back Side

Vertical Adjustment

The headlight beam is adjustable vertically. If adjusted too low, neither low nor high beam will illuminate the road far enough ahead. If adjusted too high, the high beam will fail to illuminate the road close ahead, and the low beam will blind oncoming drivers.

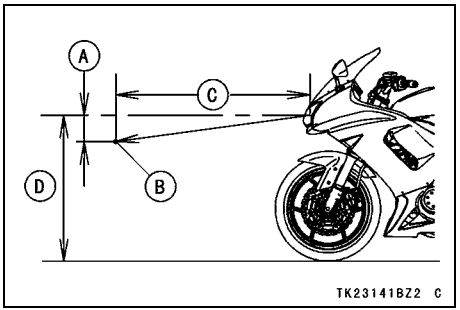
- Turn the vertical adjuster clockwise or counterclockwise to adjust its vertical angle.



A. Vertical Adjuster
B. View From Back Side

NOTE

○ *On high beam, the brightest point should be slightly below horizontal. The proper angle is 0.4 degrees below horizontal. This is a 50 mm (2.0 in.) drop at 7.6 m (25 ft) measured from the center of the headlight, with the motorcycle on its wheels and the rider seated.*

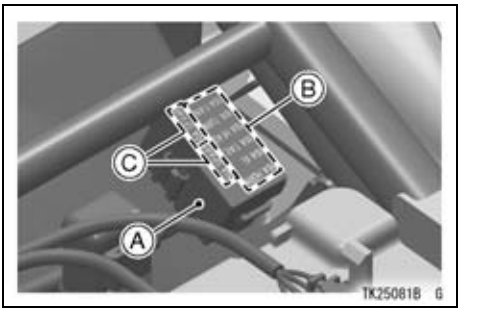


A. 50 mm (2.0 in.)
B. Center of Brightest Spot
C. 7.6 m (25 ft)
D. Height of Headlight Center

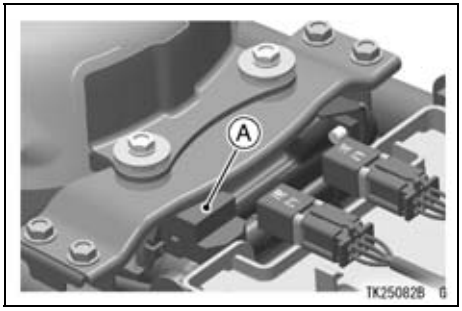
Fuses

Fuses are arranged in the fuse box located under the rider's seat. The main fuse is mounted on the starter relay located under the rider's seat. 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.

- Remove the left and right side covers by removing the bolt.
- Remove the rider's seat.



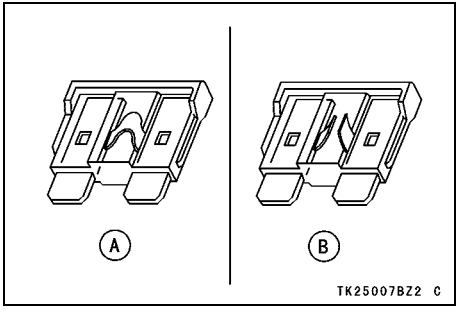
A. Fuse Box
B. Fuses
C. Spare Parts



A. Main 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 box and main fuse.



A. Normal
B. Failed

General Lubrication

Lubricate the points shown below, with either motor oil or regular grease, in accordance with the Periodic Maintenance Chart or whenever the vehicle has been operated under wet or rainy conditions.

Before lubricating each part, clean off any rusty spots with rust remover and wipe off any grease, oil, dirt, or grime.

NOTE

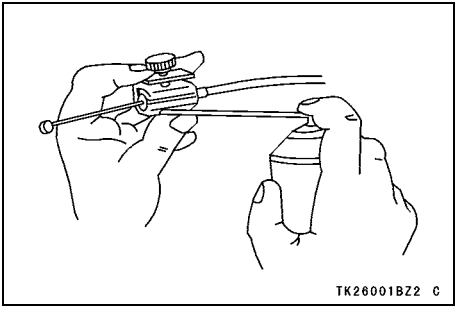
○ *A few drops of oil are effective to keep bolts and nuts from rusting and sticking. This makes removal easier. Badly rusted nuts, bolts, etc., should be replaced with new ones.*

Apply motor oil to the following pivots:

- ○ Side Stand
- ○ Clutch Lever
- ○ Front Brake Lever
- ○ Rear Brake Pedal

Lubricate the following cables with a pressure cable lubber:

- ○ **(K)**Clutch Inner Cable
- ○ **(K)**Throttle Inner Cables

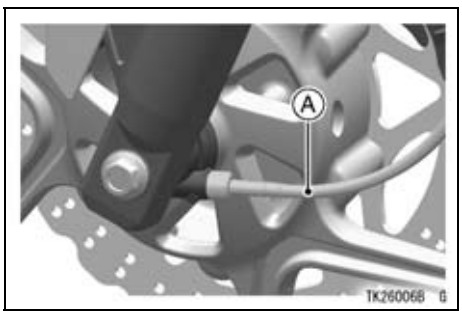


Apply grease to the following points:

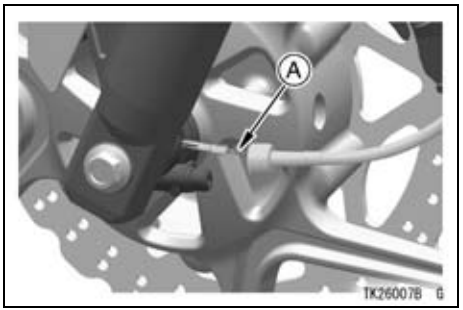
- ○ **(K)**Clutch Inner Cable Upper End
- ○ **(K)**Throttle Inner Cable Upper Ends
- *○ Speedometer Inner Cable

(K) : Should be serviced by an authorized Kawasaki dealer.

*: Grease the lower part of the inner cable sparingly.



A. Speedometer Cable

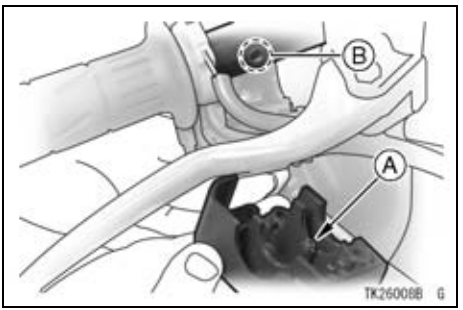


A. Grease

NOTE

- ○ *After connecting the cables, adjust them.*
- ○ *Making sure that the projection in the switch housing fits into the hole in the handlebar, assemble the switch housing. And after installing the switch housing, check the throttle grip play and adjust it if necessary.*

○ *Insert the speedometer inner cable into the speedometer gear housing while turning the wheel so that the slot in the end of the cable will seat in the tongue of the speedometer pinion.*



A. Projection
B. Hole

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.

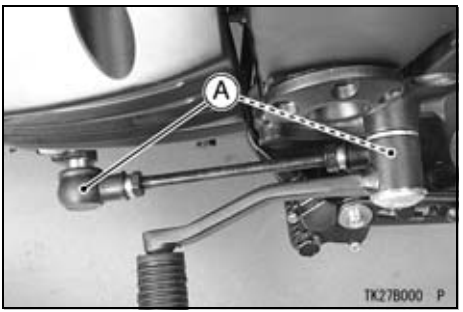
- Be sure the engine and exhaust are cool before washing.
- Avoid applying degreaser to seals, brake pads, and tires.
- Always use non-abrasive wax and cleaner/polisher.
- Avoid all harsh chemicals, solvents, detergents, and household cleaning products such as ammonia-based window cleaners.

- 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 windshield, headlight cover, and other 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, carburetors, brake components, electrical components, muffler outlets, and fuel tank openings.

Washing Your Motorcycle

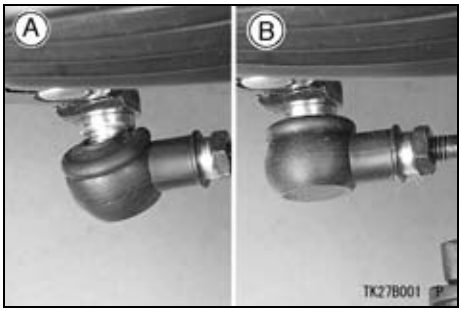
- Rinse your bike with cold water from a garden hose to remove any loose dirt.
- Mix a mild neutral detergent (designed for motorcycles or automobiles) and water in bucket. Use a soft cloth or sponge to wash your motorcycle. If needed, use a mild degreaser to remove any oil or grease build up.
- After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

- After cleaning your motorcycle, check the rubber boot covering the shift pedal ball joint for correct installation. Be sure the sealing lip of the rubber boot fits into the groove of the ball joint.



A. Boots

- If the boot is damaged, replace it with a new one. If the boot is not positioned in the groove correctly, replace it in the correct position.



A. Wrongly set lip not in the correct position
B. Lip set correctly in the groove

- 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 dry the brakes and restores them to 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.*
- *Condensation may form on the inside of the headlight lens after riding in the rain or washing the motorcycle. To remove the moisture, start the engine and turn on the headlight. Gradually the condensation on the inside of the lens will clear off.*

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.

Windshield and Other Plastic Parts

After washing use a soft cloth to gently dry plastic parts. When dry, treat the windshield, headlight lens, and other 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.

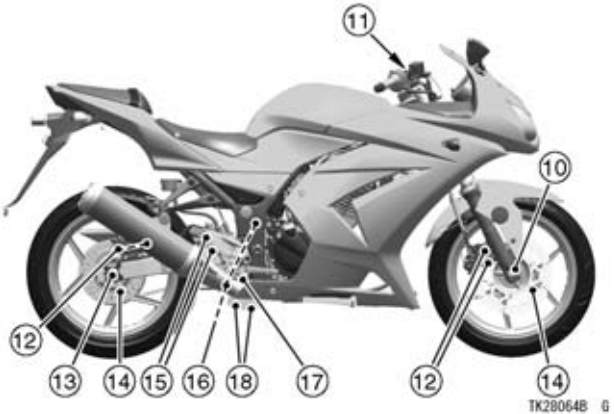
Bolt and Nut Tightening

In accordance with the Periodic Maintenance Chart, it is very important to check the tightness of the bolts and nuts listed here. Also, check to see that each cotter pin is in place and in good condition. Please ask your authorized Kawasaki dealer for torque values.

1. Front Fork Clamp Bolts
2. Handlebar Mounting Bolts
3. Stem Head Bolt
4. Steering Nut
5. Engine Mounting Bolts and Nuts
6. Pivot Shaft Nut
7. Side Stand Bolt
8. Step Stay Mounting Bolt
9. Rear Sprocket Mounting Nut



10. Front Axle Nut
11. Front Brake Master Cylinder Clamp Bolt
12. Caliper Mounting Bolts
13. Rear Axle Nut
14. Brake Disk Mounting Bolts
15. Rear Master Cylinder Mounting Bolts
16. Rear Shock Absorber Mounting Nuts
17. Brake Pedal Mounting Bolt
18. UNI TRACK Lever Rod Nuts



STORAGE

Preparation for Storage:

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

⚠ WARNING

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

- Put in fresh engine oil.
- Empty the fuel from the fuel tank by the pump or siphon.

⚠ WARNING

Gasoline is extremely flammable and can be explosive under certain conditions. Turn the ignition key to "OFF". 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.

- Empty the fuel system by running the engine at idle speed until the engine stalls. (If left in for a long time, the fuel will break down and could clog the fuel system.)
- Reduce tire pressure by about 20%.
- Set 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.)
- Spray oil on all unpainted metal surfaces to prevent rusting. Avoid getting oil on rubber parts or in the brakes.
- Lubricate the drive chain and all the cables.
- Remove the battery, and store it where it will not be exposed to direct sunlight, moisture, or freezing temperatures. During storage it should be given a slow charge (one ampere or less) about once a month. Keep the battery well charged especially during cold weather.
- Tie plastic bags over the mufflers to prevent moisture from entering.

- Put a cover over the motorcycle to keep dust and dirt from collecting on it.

Preparation after Storage:

- Remove the plastic bags from the mufflers.
- Install the battery in the motorcycle and charge the battery if necessary.
- Fill the fuel tank with fuel.
- Check all the points listed in the Daily Safety Checks section.
- Lubricate the pivots, bolts, and nuts in General Lubrication section.

TROUBLESHOOTING GUIDE

Engine Does Not Start:

Starter Motor Won't Turn

- Engine stop switch off
- Transmission not in neutral
- Fuse blown
- Battery leads do not make good electrical contact with battery terminals
- Battery discharged

Engine Cranks, But Won't Start

- No fuel in tank
- Fuel line clogged
- Fuel broken down
- Choke is not used when engine is cold
- Engine flooded
- Spark plugs not in good contact
- Spark plugs fouled or wet
- Incorrect spark plug gap
- Incorrect valve clearance
- Battery discharged

Engine Stalls:

Just When Shifting Into 1st Gear

- Clutch does not properly disengage

While Riding

- Choke is used too long after moving off
- No fuel in tank
- Fuel tank air vent is obstructed
- Overheating
- Battery discharged

Owner Satisfaction

(For Products Sold in the Continental United States of America Only)

Your satisfaction is important to your authorized Kawasaki dealer and to Kawasaki Motors Corp., U.S.A. If you have a problem concerning warranty or service, please take the following action:

Contact the owner and/or service manager of your authorized Kawasaki dealer. Fully explain your problem and ask for assistance in resolving the situation. The OWNER of the dealership is concerned with your satisfaction and your future business. For this reason the owner is in the best position to assist you. Also, all warranty and service matters are handled and resolved through the authorized Kawasaki dealer network.

If you are unsatisfied after working with your Kawasaki dealer and feel you still require further assistance, write to the address below. Please be certain to provide the model, product identification number, 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 names of the dealership personnel with whom you have been working in the resolution of your problem.

Upon receipt of your correspondence we will contact the dealership and work with them in resolving your problem.

In order to provide a permanent record, all warranty and service resolutions take place only through written correspondence.
Please send your correspondence to:

CONSUMER RELATIONS
KAWASAKI MOTORS CORP., U.S.A.
P. O. Box 25252
SANTA ANA, CA. 92799-5252
(949) 460–5688

Reporting Safety Defects

(For Products Sold in the Continental United States of America Only)

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Kawasaki Motors Corporation, U.S.A.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Kawasaki Motors Corporation, U.S.A.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800 -424-9393 (or 366-0123 in Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

ENVIRONMENTAL PROTECTION

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

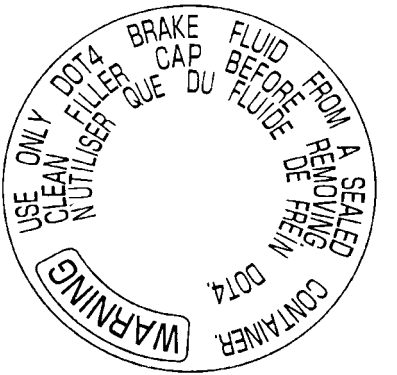
LABEL INFORMATION

(1)



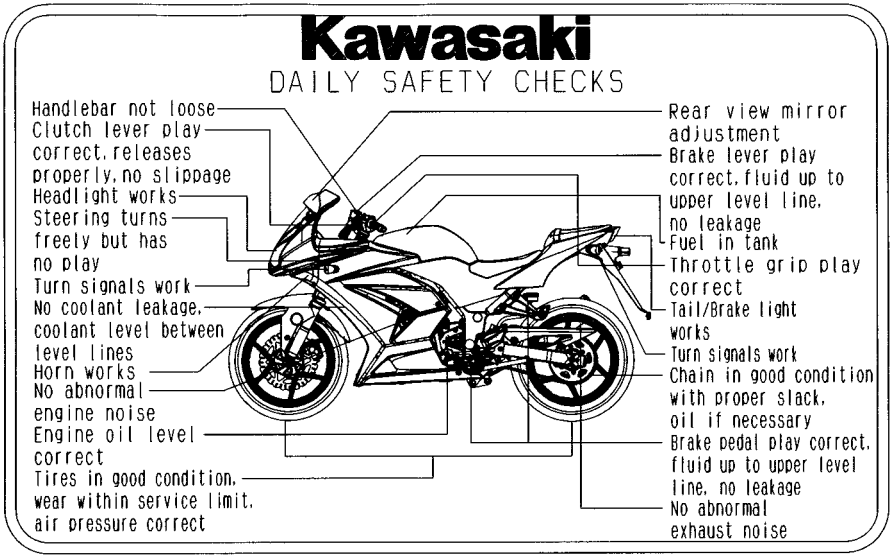
TE03816BN9 C

(2)



TE03097B S

(3)


Kawasaki
DAILY SAFETY CHECKS
Handlebar not loose
Clutch lever play correct, releases properly, no slippage
Headlight works
Steering turns freely but has no play
Turn signals work
No coolant leakage, coolant level between level lines
Horn works
No abnormal engine noise
Engine oil level correct
Tires in good condition, wear within service limit, air pressure correct
Rear view mirror adjustment
Brake lever play correct, fluid up to upper level line, no leakage
Fuel in tank
Throttle grip play correct
Tail/Brake light works
Turn signals work
Chain in good condition with proper slack, oil if necessary
Brake pedal play correct, fluid up to upper level line, no leakage
No abnormal exhaust noise

TE0375IB S

(4)

VEHICLE EMISSION CONTROL INFORMATION

ENGINE FAMILY CODE --- AKAXC.249AAE PERMEATION FAMILY --- AKAXPMETAL01
MODEL(S) ---------- EX250JA
EXHAUST EMISSION CONTROL SYSTEM ---------- EM+AIR+2OC
DISPLACEMENT ---------- 249 CC

TUNE UP SPECIFICATIONS

IGNITION TIMING	10° BTDC AT 1300 RPM
IDLE SPEED	1300 ± 50 RPM IN NEUTRAL
IDLE AIR FUEL MIXTURE SETTING	NO ADJUSTMENT
VALVE CLEARANCE (ENGINE COLD)	INTAKE : 0.15-0.24 MM (0.0059-0.0094 IN) EXHAUST : 0.22-0.29 MM (0.0087-0.0114 IN)
SPARK PLUG	CR8E (NGK) SPARK PLUG GAP : 0.7-0.8 MM U24ESR-N(DENSO) (0.028-0.031 IN)
FUEL	GASOLINE WITH RESEARCH OCTANE NO. (RON) 91 MIN.
ENGINE OIL	SERVICE RATING : API SG, SH, SJ, SL OR SM WITH JASO MA VISCOSITY : SAE 10W-40 SEE THE OWNER'S MANUAL FOR ENGINE OIL INFORMATION.

THIS VEHICLE CONFORMS TO U.S.EPA REGULATIONS
APPLICABLE TO MODEL YEAR NEW MOTORCYCLES.
KAWASAKI MOTORS ENTERPRISE(THAILAND) CO.,LTD.

Kawasaki

59464-1772

TE03213CZ9 C

(4) only on California model

VEHICLE EMISSION CONTROL INFORMATION

ENGINE FAMILY CODE --- AKAXC.249AAE PERMEATION FAMILY --- AKAXPMETAL01
EVAP.FAMILY --- AKAXU25.0A01
MODEL(S) --- EX250JA
EXHAUST EMISSION CONTROL SYSTEM --- EM+PAIR+2OC
DISPLACEMENT --- 249 CC

TUNE UP SPECIFICATIONS

IGNITION TIMING	10° BTDC AT 1300 RPM
IDLE SPEED	1300 ± 50 RPM IN NEUTRAL
IDLE AIR FUEL MIXTURE SETTING	NO ADJUSTMENT
VALVE CLEARANCE (ENGINE COLD)	INTAKE : 0.15-0.24 MM (0.0059-0.0094 IN) EXHAUST : 0.22-0.29 MM (0.0087-0.0114 IN)
SPARK PLUG	CR8E (NGK) SPARK PLUG GAP : 0.7-0.8 MM U24ESR-N(DENSO) (0.028-0.031 IN)
FUEL	GASOLINE WITH RESEARCH OCTANE NO. (RON) 91 MIN.
ENGINE OIL	SERVICE RATING :API SG, SH, SJ, SL OR SM WITH JASO MA VISCOSITY :SAE 10W-40 SEE THE OWNER'S MANUAL FOR ENGINE OIL INFORMATION.

THIS VEHICLE CONFORMS TO U.S.EPA AND CALIFORNIA REGULATIONS
APPLICABLE TO 2010 MODEL YEAR NEW MOTORCYCLES.
KAWASAKI MOTORS ENTERPRISE(THAILAND) CO.,LTD.

59464-1775

(5)

TIRE AND LOAD DATA

The stability and handling characteristics of this motorcycle could become unsafe by the use of improper tire inflation pressures, overworn tires, unsuitable replacement tires, or overloading. When tire tread wears down to the limit, replace the tire with only the standard tire. Maintain the inflation pressure specified.

	Air Pressure (Cold)	Size & Make Type (Tubeless Tire)			Minimum Tread Depth	
Front	Up to 170 kg Load (375lbs)	200 kPa (2.00kgf/cm², 28psi)	IRC RX-01F TL 110/70-17M/C 54S	BRIDGESTONE BT-45F TL 110/70-17M/C 54H	DUNLOP GT501FG TL 110/70-17M/C 54H	1 mm (0.04in)	
Rear		225 kPa (2.25kgf/cm², 32psi)	IRC RX-01R TL 130/70-17M/C 62S	BRIDGESTONE BT-45R TL 130/70-17M/C 62H	DUNLOP GT501R TL 130/70-17M/C 62H	Up to 130 km/h (80MPH)	2 mm (0.08in)
						Over 130 km/h (80MPH)	3 mm (0.12in)

TE03813BN8 C

(6)

IMPORTANT DRIVE CHAIN INFORMATION

To prevent an accident and/or damage to the motorcycle, the drive chain must be properly maintained. It should be lubricated every 600km (400mi) and adjusted as often as necessary to keep chain slack at about 20~30mm (0.8~1.2in) measured midway between sprockets on the lower chain run with the motorcycle on the side stand. The standard chain is an Enuma EK520SR-O_2 with estimated service life of 15000~45000km (9400~28000mi), depending on the severity of use and the frequency of lubrication and adjustment. For safety, replace the chain with only the standard chain any time it wears to over 323mm (12.7in), measured over a 20-link portion pulled straight with 98N (10kgf, 20lbf) of tension. See the Owner's Manual for chain information.

TE03753BN8 C

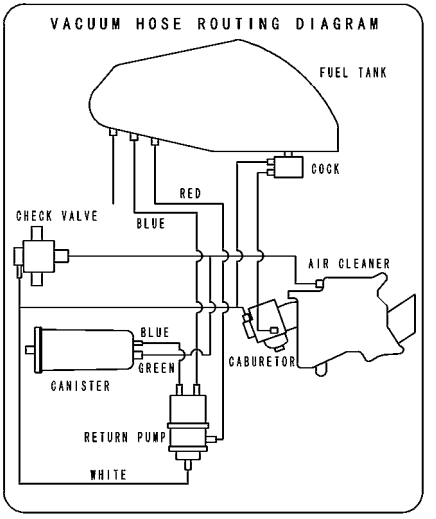
(7)



26012-0089

TE03220C S

(8) only on California model



59464-1398

TE03221CN7 C

(9)

MOTORCYCLE NOISE EMISSION CONTROL INF.

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:

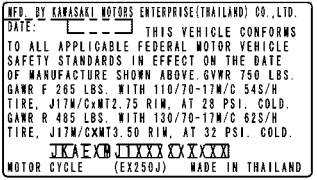
TE03756BN9 C

(10) only on California model



56071-0158
TE03142C S

(11)



59464-1464 TE03214CN9 C

MAINTENANCE RECORD

Owner Name.....

Address .....

Phone Number.....

Engine Number.....

Vehicle Number.....

Selling Dealer Name.....

Phone Number.....

Warranty Start Date .....

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

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

EX250JA



Kawasaki

KAWASAKI HEAVY INDUSTRIES,LTD.
Consumer Products & Machinery Company

Part No. 99987-1612

Printed in Thailand