



# Motorcycle Motocyclette Motorrad Motocicletta

# OWNER'S MANUAL MANUEL DU PROPRIÉTAIRE BETRIEBSANLEITUNG MANUALE USO E MANUTENZIONE

ENGLISH



# could result in personal hijury, or Motorcycle

**Owner's Manual** 

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

# WARNING

This warning symbol identifies special instructions or procedures which, if not correctly followed, could result in personal injury, or loss of life.

# CAUTION

This caution symbol identifies special instructions or procedures which, if not strictly observed, could result in damage to or destruction of equipment.

#### NOTE

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

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THIS PRODUCT HAS BEEN MAN-UFACTURED FOR USE IN A REA-SONABLE AND PRUDENT MANNER BY A QUALIFIED OPERATOR AND AS A VEHICLE ONLY. Whenever you see the symbols shown below, heed their instructions! Always follow safe operating and maintenance practices.

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# 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.

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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

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# SPECIFICATIONS

#### PERFORMANCE

Maximum Horsepower

Maximum Torque

Maximum Turning Radius DIMENSIONS

Overall Length Overall Width Overall Height Road Clearance

#### ENGINE

Type Displacement Bore x Stroke Compression Ratio Starting System Cylinder Numbering Method Firing Order Carburetors

#### (\*ER500D only)

36 kW (49 PS) @8,700 r/min (rpm) \*25 kW (34 PS) @8,000 r/min (rpm) 43 N·m (4.6 kg·m, 33.2 ft·lb) @7,200 r/min (rpm) \*37 N·m (3.8 kg·m, 27.5 ft·lb) @4,500 r/min (rpm) 2.5 m (98.4 in.)

2,070 mm (81.5 in.) 730 mm (28.7 in.) 1,070 mm (42.13 in.) 125 mm (4.92 in.)

DOHC, 2-cylinder, 4-stroke, liquid-cooled 498 mL (30.4 cu in.) 74.0 x 58.0 mm (2.91 x 2.28 in.) 9.8 : 1 Electric starter Left to right, 1-2 1-2 KEIHIN CVK34 x 2 Ignition System **Ignition Timing** (Electronically advanced) Spark Plugs Lubrication System Engine Oil

#### Coolant Capacity TRANSMISSION

Transmission Type Clutch Type **Driving System** Primary Reduction Ratio Final Reduction Batio **Overall Drive Ratio** Gear Ratio

Battery and coil (transistorized ignition) 10° BTDC @1,200 r/min (rpm)  $\sim$ 37.5° BTDC @10.000 r/min (rpm) NGK DR9EA or ND X27ESR-U Forced lubrication (wet sump) Type: API SE, SF or SG : API SH or SJ with JASO MA SAE 10W-40 Capacity: 3.4 L (3.6 US qt) 1.7 L (1.8 US at)

> 6-speed, constant mesh, return shift Wet, multi disc Chain drive 2.652 (61/23) 2.470 (42/17) 5.581 (Top gear) 1st 2.571 (36/14) 2nd 1.722 (31/18) 1.333 (28/21) 1.125 (27/24) 5th 0.961 (25/26) 0.851 (23/27)

3rd

4th

6th

FRAME		
Castor		27°
Trail		102 mm (4.0 in.)
Tire Size:	Front	110/70-17 M/C 54 H Tubeless
	Rear	130/70-17 M/C 62 H Tubeless
Fuel Tank Capacity		17 L (4.5 US gal)
ELECTRICAL EQUIPMENT		
Battery		12 V 10 Ah
Headlight		12 V 60/55 W
Tail/Brake Light		12 V 5/21 W

Specifications subject to change without notice, and may not apply to every country.

# LOCATION OF PARTS



- 1. Clutch Lever
- 2. Meter Instruments
- 3. Indicator Lights
- 4. Brake Fluid Reservoir (Front)
- 5. Front Brake Lever

- 6. Left Handlebar Switches
- 7. Ignition Switch/Steering Lock
- 8. Right Handlebar Switches
- 9. Throttle Grip



- 10. Headlight
- 11. Turn Signal Light
- 12. Spark Plugs
- 13. Fuel Tap
- 14. Carburetors
- 15. Air Cleaner
- 16. Tool Kit Compartment
- 17. Battery

- 18. Fuse Case
- 19. Tying Hooks
- 20. Storage Compartment
- 21. Brake Disc
- 22. Brake Caliper
- 23. Radiator
- 24. Idle Adjusting Screw

- 25. Shift Pedal
- 26. Side Stand
- 27. Center Stand
- 28. Seat Lock
- 29. Helmet Hook
- 30. Drive Chain
- 31. Rear Shock Absorber



- 32. Tail/Brake Light
- 33. Coolant Reserve Tank
- 34. Seat
- 35. Fuel Tank
- 36. Fuel Tank Cap
- 37. Muffler

38. Brake Lining Wear Indicator39. Rear Brake Light Switch40. Rear Brake Pedal41. Oil Level Gauge

# **GENERAL INFORMATION**

## Meter Instruments

- A : Speedometer B : Tachometer
- C : Red Zone
- C: Red Zone D: Oil Pressure Warning Light E: Coolant Temperature Warning Light F: Right Turn Signal Indicator Light G: Neutral Indicator Light H: High Beam Indicator Light I: Left Turn Signal Indicator Light J: Trip Meter K: Trip Reset Knob L: Odometer

- Odometer L:
- M : Fuel Gauge



#### **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 turning the reset knob counterclockwise.

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.

# CAUTION

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.

# CAUTION

To avoid damage, the reset knob must be turned counterclockwise.

#### **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.

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

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

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

E: The coolant temperature warning light goes on when the ignition key is turned to "ON" and goes off soon after the engine starts running to ensure that its circuit functions properly. The warning light also goes on whenever the coolant temperature rises to 120°C (248°F) or higher when the motorcycle is in operation. If it stays on, stop the engine and check the coolant level in the reserve tank after the engine cools down.

# CAUTION

Do not let the engine continue running when the warning light goes on. Prolonged engine operation will result in severe damage from overheating.

#### **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.

# Key

This motorcycle has a combination key, which is used for the ignition switch/steering lock, seat lock, helmet hook 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.

# Ignition Switch/Steering Lock

This is a four-position, key-operated switch. The key can be removed from the switch when it is in the OFF, LOCK, or P (Park) position.



- A. Ignition Switch/Steering Lock
- B. LOCK position
- C. OFF position
- **D. ON position**
- E. P (Park) 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.
P(Park)	Steering locked. Engine off. Tail and city (except Australian model) lights on. All other electrical circuits cut off.

○ If you leave the P(Park) position on for a long time (one hour), the battery may become totally discharged.

# NOTE

The taillight is on whenever the ignition key is in the ON position. The 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 operate the ignition switch;

b

- 2. a. For parking push down the key in the ON position and turn it to P(Park).
- LOCK b. For locking push down the key in the OFF position and turn it to LOCK

# Right Handlebar Switches Engine Stop Switch

In addition to the ignition switch, the engine stop switch must be in the O 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  $\Re$  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 pushed with the clutch lever pulled in or the transmission 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 (  $\equiv D$  ), the high beam indicator light is lit.

High beam..... ( ID )





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

#### **Turn Signal Switch**

When the turn signal switch is turned to the left ( ⇔ ) or right ( ⇔ ), the corresponding turn signals flash on and off. To stop flashing, push the switch in.

#### Horn Button

When the horn button is pushed, the horn sounds.

#### **Passing Button**

When the passing button is pushed, the headlight high beam (passing beam) comes on to signal the driver of the vehicle ahead that you are about to pass him. The passing light shuts off as soon as the button is released.

## **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.
- Do not push on the key to close the cap or the cap cannot be locked.



A. Ignition Key B. 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.



## AWARNING

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.

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 overflow through the vents in the tank cap.

After refueling, make sure the fuel tank cap is closed securely.

If gasoline is spilled on the fuel tank, wipe it off immediately.

#### **Fuel Requirement:**

Your Kawasaki engine is designed to use unleaded gasoline.

#### Octane Rating

The octane rating of a gasoline is a measure of its resistance to detonation or "knocking." The term commonly used to describe a gasoline's octane rating is the Research Octane Number (RON). Always use a gasoline with an octane rating equal to, or higher than, RON 91.

## NOTE

 If "knocking" or "pinging" occurs, use a different brand of gasoline or higher octane rating.

## Fuel Tap

The fuel tap is an automatic type which shuts off the fuel supply when the engine is stopped in the ON or RES position.



A. Fuel Tap B. ON position C. PRI position D. RES position

The fuel tap has three positions: ON, RES (reserve), and PRI (prime). If the fuel runs out with the tap in the ON position, turn the tap lever to PRI, leave it for a few seconds, and then turn it to RES. The last 3.0 L (0.8 US gal) of fuel can be used by turning the fuel tap lever to RES.

The PRI position bypass the automatic control and is useful for priming the engine after running out of gas, or for completely draining the tank.

# NOTE

- Since riding distance is limited when on RES, refuel at the earliest opportunity.
- Make certain that the fuel tap lever is turned to ON (Not RES) after filling up the fuel tank.
- To start a cold engine after the motorcycle has been stored for a long time, first turn the tap lever to PRI, leave it for a moment, and return it to ON.

# **AWARNING**

Practice operating the fuel tap with the motorcycle stopped. To prevent an accident you should be able to operate the fuel tap while riding without taking your eyes off the road.

Be careful not to touch the hot engine while operating the fuel tap. 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.

#### **Brake/Clutch Lever Adjusters**

There is an adjuster on both the brake and clutch levers. Each adjuster has 5 positions so that the released lever position can be adjusted to suit the operator's hands. Push the lever forward and turn the adjuster to align the number with the arrow mark on the lever holder. The distance from the grip to the released lever is minimum at Number 5 and maximum at Number 1.



A. Adjuster



#### Stands

The motorcycle is equipped with two stands: a center stand and a side stand.



A. Side Stand

#### NOTE

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

Whenever the side stand or center 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 stops if the clutch is engaged with the transmission in gear when the side stand is down.

To set the motorcycle up on the center stand, step down firmly on the stand, and then lift the motorcycle up and to the rear using the grab rail as a hand-hold. Don't pull up on the seat to lift as this will damage the seat.



A.	Center Stand
В.	Step down.

C. Grab Rail D. Lift up.

## Seat Lock

To remove the seat, insert the ignition key into the seat lock, turn the key to the right, and pull up on the rear of the seat. The seat is locked when pushed back into place.



A. Seat Lock

**B. Ignition Key** 

# **Tying Hooks**

When tying up light loads to the seat, use the hooks on the left and right side under the seat.



A. Tying Hooks

# Helmet Hook

A helmet can be secured to the motorcycle using the helmet hook.

The helmet hook can be unlocked by inserting the ignition key into the lock, and turning the key to the right.

## AWARNING

Do not ride the motorcycle with helmet attached to the hook. The helmet could cause on accident by distracting the operator or interfering with normal vehicle operation.



A. Helmet Hook

#### **Tool Kit Compartment**

The tool kit is stored in the tool kit compartment under the seat. The minor adjustments and replacement of parts explained in this manual can be performed with the tools in the kit.



A. Tool Kit

#### Storage Compartment

In the rear portion under the seat is a storage compartment. Use it to keep a Ushaped lock, the owner's manual and any paper or documents that should be kept with the motorcycle.



A. Storage Compartment B. Lock Strap C. U-shaped Lock

# NOTE

○ When storing a U-shaped lock in the compartment, tie it down with the strap as shown in the figure.

 Depending on their sizes and designs, certain U-shaped locks may not fit in the compartment.

# **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 $\sim$ 800 km (0 $\sim$ 500 mi)	4,000 r/min (rpm)
800 $\sim$ 1,600 km (500 $\sim$ 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.

#### AWARNING

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 an authorized Kawasaki dealer.

# HOW TO RIDE THE MOTORCYCLE .

# **Starting the Engine**

• Turn the fuel tap lever to the ON position.



A. Fuel Tap

- **B. ON position**
- Check that the engine stop switch is in the  $\Omega$  position.
- Turn the ignition key to "ON."
- Make certain 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 days [35°C (95°F) or more], open the throttle part way instead of using the choke, and then start the engine.



A. Choke Lever

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

## CAUTION

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 a throttle fully open until the engine starts.
- O The motorcycle is equipped with a starter lockout switch. This switch prevents the electric starter from operating when the clutch is engaged and the transmission is not in neutral.


A. Clutch Lever B. Starter Lockout Switch

- Gradually push 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, push the choke lever all the way back as soon as you start moving.

## CAUTION

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.

### **AWARNING**

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 the seat.
- Remove the tool kit compartment (see the Battery section in the MAINTE-NANCE AND ADJUSTMENT chapter).
- Make sure the ignition key is turned to "OFF."
- 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 rear shock absorber mounting bolt or other unpainted metal surface. Do not use the negative (-) terminal of the battery.

### AWARNING

Do not make this last connection at the carburetor or battery. Take care that you do not touch the positive and negative cables together, and do not lean over the battery when making this last connection. Do not jump start 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.

## CAUTION

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

O The motorcycle is equipped with a side stand switch. This switch is designed so that the engine stops if the clutch is engaged with the transmission in gear when the side stand is down.

### **Shifting Gears**

- Close the throttle while pulling in the clutch lever.
- Shift into the next higher or lower gear.

#### **AWARNING**

When shifting down to a lower gear, do not shift at such a high speed that the engine r/min (rpm) jumps excessively. Not only can this cause engine damage, but the rear wheel may skid and cause an accident. Downshifting should be done below 5,000 r/min (rpm) for each gear.

 Open the throttle part way, while releasing the clutch lever.

# 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 to 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

# CAUTION

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

# **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 or center 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.
- 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 or center stand.

# CAUTION

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.

#### AWARNING

Gasoline is extremely flammable and can be explosive under certain conditions.

Lock the steering to help prevent theft.

# NOTE

- When stopping near traffic at night, you can leave the city light (except Australian models) and taillight on for greater visibility by turning the ignition key to the P (park) position.
- Do not leave the ignition switch at P position too long, or the battery will discharge.

## **Catalytic Converter**

This motorcycle is equipped with a catalytic converter in the exhaust system. Platinum and rhodium in the converter react with harmful carbon monoxide and hydrocarbons to convert them into harmless carbon dioxide and water 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.

- This model's muffler and exhaust gas are hotter than usual because of the chemical reaction that takes place in the catalytic converter. Although the muffler is made of double tubing to reduce heat transfer the temperature on the muffler surface is very hot.
- 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.

# SAFE OPERATION

### **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.

#### **MWARNING**

Failure to perform these checks every day before you ride may result in serious damage or a severe accident.

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

Front	Up to 181 kg (400 lb) Load	225 kPa (2.25 kg/cm <sup>2</sup> , 32 psi)
Rear	Up to 97.5 kg (215 lb) Load	250 kPa (2.50 kg/cm <sup>2</sup> , 36 psi)
u - 14-	97.5 $\sim$ 181 kg (215 $\sim$ 400 lb) Load	280 kPa (2.80 kg/cm <sup>2</sup> , 41 psi)

Install the air valve cap.

Drive chain	Slack 35 $\sim$ 40 mm (1.4 $\sim$ 1.6 in.).
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.
	Brake pedal play 20 $\sim$ 30 mm (0.8 $\sim$ 1.2 in.)
	Brake lining wear: Indicator within "USABLE RANGE".
Throttle	Throttle grip play 2 $\sim$ 3 mm (0.08 $\sim$ 0.12 in.).
Clutch	Clutch lever play 2 $\sim$ 3 mm (0.08 $\sim$ 0.12 in.).
	Clutch lever operates smoothly.
Coolant	No coolant leakage
	Coolant level between level lines (when engine is cold).
Electrical equipment	All lights and horn work.
Engine stop switch	Stops engine.
Side and center stands	Return to their fully up position by spring tension.
	Return springs not weak or not damaged.

Refer to "Daily Safety Checks" caution label attached to the back of the left side cover.

## 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 certain that the oil level is at the upper level line.
- **Coolant:** To avoid engine overheating, check that the coolant level is at the upper level line.
- Electrical Equipment: Make certain that the headlight, tail/brake light, turn signals, horn, etc., all work properly.
- Miscellaneous: Make certain that all nuts and bolts are tight and that all safety related parts are in good condition.

#### **AWARNING**

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.

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

If you are in doubt as to any adjustment or vehicle operation, please ask your authorized Kawasaki dealer to check the motorcycle.

Please note that Kawasaki cannot assume any responsibility for damage resulting from incorrect maintenance or improper adjustment done by the owner.

### **Periodic Maintenance Chart**



	Frequency	Whichever	*Odometer Reading	km (mi)
		2 /25	20 20 80 80 00	8/88/88/
Operation			0 N N. 20 N N.	Se See

Brake fluid level-check †	month								06
KBrake fluid-change	2 vears				-		-	-	00
KFuel hose, connections-check †			•	•	•	•	•	•	- 87
KSteering-check †		•							
Drive chain wear-check †#						-			-
Nut, bolt and fastener tightness			-	-	-	-	•	•	82
-checkt		•		•		•			-
Tire wear-check †									05
Engine oil-change #	6 month					-	-		95
Oil filter-replace							•	•	50
KGeneral lubrication-perform						-			56
KFront fork oil-change	2 years							•	-
Front fork oil leak-check t									
Rear shock absorber oil leak -check †				•		•		•	-
KSwingarm pivot-lubricate						-		-	
						-			_

	Frequency	Whichever	*Odometer Reading	km (mi)
	2	comes first		
		- /o-/	280/23/28/20	8/88/28/
Operation		Every	8 2 5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Son Stree

K Coolant-change	2 years						62
K Coolant filter-clean	years						62
Radiator hoses, connections-							UL
check †		-				_	59
K Steering stem bearing-lubricate	2 years						1 -
K Master cylinder cup and dust seal-replace	4 years						-
Caliper piston seal and dust							
seal-replace	4 years						
Drive chain-lubricate #		Every	600 kn	n (400 r	ni)		83
Drive chain slack-check †#		Every 1,000 km (600 mi)			78		

- K : Should be serviced by an authorized Kawasaki dealer.
- \* : For higher odometer readings, repeat at the frequency interval established here.
- † : Replace, add, adjust, or torque if necessary.
- # : 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.

#### **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.

## CAUTION

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 oil to reach the correct level. Use the same type and brand of oil that is already in the engine.

### CAUTION

If the engine oil gets extremely low or if the oil pump does not function properly or oil passages are clogged, the oil pressure warning light will light. If this light stays on when the engine speed is above 1,500 r/min (rpm), stop the engine immediately and find the cause.



A. Oil Pressure Warning Light

#### Oil and/or Oil Filter Change

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



A. Drain Plug

 Let the oil completely drain with the motorcycle perpendicular to the ground.

### AWARNING

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 cartridge and replace it with a new one.



A. Cartridge

• Apply a thin film of oil on the packing and tighten the cartridge to the specified torque.



#### A. Packing

• Install the drain plug with its gasket. Tighten it to the specified torque.

## NOTE

 Replace the damaged gasket with a new one.

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

#### **Tightening Torque**

Engine Drain Plug:
29 N·m (3.0 kg·m, 22 ft·lb)
Cartridge:
17 N·m
(1.75 kg·m, 12.5 ft·lb)

### **Recommended Engine Oil**

Туре:	API SE, SF or SG
	API SH or SJ with JASO MA
	SAE 10W-40

### **Engine Oil**

Capacity:	2.8 L (3.0 US qt)
	[when filter is not removed]
	3.0 L (3.2 US qt)
	[when filter is removed]
	3.4 L (3.6 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

The cooling fan turns on automatically, even with the ignition switch off. Keep your hands and clothing away from the fan blades at all times.

## CAUTION

Using high-pressure water, as from a car wash facility, could damage the radiator fins and impair the radiator's effectiveness.

Do not obstruct or deflect airflow through the radiator by installing unauthorized accessories in front of the radiator or behind the cooling fan. Interference with the radiator airflow can lead to overheating and consequent engine damage.

#### **Radiator Hoses:**

Check the radiator hoses for cracks or deterioration, and connections for looseness 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 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**

Use coolant containing corrosion inhibitors made specifically for aluminum engines and radiators in accordance with the instructions of the manufacturer. Chemicals are harmful to the human body.

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

## CAUTION

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.

## CAUTION

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

# NOTE

 $_{\odot}$  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

- · Remove the seat.
- Situate the motorcycle so that it is perpendicular to the ground.
- Check the coolant level through the coolant level gauge on the reserve tank. The coolant level should be between the F(Full) and L(Low) lines.

## NOTE

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



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

- If the amount of coolant is insufficient, remove the cap from the reserve tank and add coolant through the filler opening to the F(Full) level line.
- Install the cap.

### 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.

## CAUTION

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

#### Coolant Change

Have the coolant changed by an authorized Kawasaki dealer.

#### Coolant Filter Clean

Before the winter season starts, have the coolant filter cleaned by an authorized Kawasaki dealer.

### **Spark Plugs**

The standard spark plug is shown in the table in this section. The spark plugs should be taken out in accordance with the Periodic Maintenance Chart for cleaning, inspection, and resetting of the plug gap.

#### Maintenance

If the plug is oily or has carbon built up on it, have it cleaned, preferably in a sand-blasting device, and then clean off any abrasive particles. The plug may also be cleaned using a high flash-point solvent and a wire brush or other suitable tool. Measure the gap with a wire-type thickness gauge, and adjust the gap if incorrect by bending the outer electrode. If the spark plug electrodes are corroded or damaged, or if the insulator is cracked, replace the plug. Use the standard plug.

## Spark Plug Removal

Remove the seat.

• Take off the screws from the left and right side covers.



A. Left Side Cover C. Pull here. B. Screw

- Pull the front, rear and lower portions of the side cover outward.
- Take off the fuel tap mounting screws.



A. Fuel Tap B. Screws

C. Fuel Hose D. Vacuum Hose



#### A. Fuel Tank

B. Bolt

# NOTE

- Pull the fuel hose and the vacuum hose off the fuel tap. Never pull off the fuel hoses from the fuel tank.
- Take off the fuel tank mounting bolt from the rear end of the tank and remove the tank.
- For easier removal of the tank first twist the fuel tap so the fitting for the fuel hose to the carburetor faces upward and then push the tap up through the frame and carburetor.
- Carefully pull the spark plug caps from the spark plugs.



A. Spark Plug Cap

• Unscrew the spark plugs with a plug wrench in the tool kit.

### CAUTION

When unscrewing the spark plugs, be careful not to damage the cylinder head cover with the plug wrench.

### NOTE

- Spark plug installation is performed in the reverse order of removal.
- Fit the plug cap securely onto the spark plug, and pull the cap lightly to make sure that it is properly installed.



A. 0.6  $\sim$  0.7 mm (0.024  $\sim$  0.028 in.)

### **Spark Plug**

Standard Dive	NGK DR9EA or
Standard Plug	ND X27ESR-U
Plug Gon	$0.6\sim 0.7~\text{mm}$
r lug Gap	(0.024 $\sim$ 0.028 in.)
Tightening	14 N·m
Torque	(1.4 kg·m, 10.0 ft·lb)

### CAUTION

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 DR8EA or ND X24ESR-U

## **Valve Clearance**

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

# CAUTION

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 by an authorized Kawasaki dealer.

### 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 poisonous carbon monoxide into harmless 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 by an authorized Kawasaki dealer.

### **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 seat.
- Remove the left side cover (see Spark Plug Removal in the Spark Plugs section).
- Take off the screws and remove the air cleaner housing cover.
- Take off the mounting bolt of the side cover bracket and remove the bracket.



- A. Air Cleaner Housing Cover
- **B. Screws**
- C. Side Cover Bracket
- D. Bolt
- Pull out the element.



#### A. Paper Element

- 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.

#### AWARNING

If dirt or dust is allowed to pass through into the carburetors, the throttle may become stuck, possibly causing an accident.

# CAUTION

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 paper element by tapping it lightly to loosen dust.
- Blow away remaining dust by applying compressed air from the outside to the

inside (from the clean side to the dirty side).

### **Throttle Grip**

The throttle grip controls the throttle valves. 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 valves may not open fully at full throttle. On the other hand, if the throttle grip has no play, the throttle will be hard to control, and the idle speed will be erratic. Check the throttle grip play in accordance with the Periodic Maintenance Chart, and adjust the play if necessary.

#### Inspection

• Check that there is  $2 \sim 3 \text{ mm} (0.08 \sim 0.12 \text{ in.})$  throttle grip play when lightly turning the throttle grip back and forth.



A. Throttle Grip B.  $2 \sim 3$  mm (0.08  $\sim$  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)

- Tighten the locknut.
- If the throttle cables can not be adjusted by using the cable adjuster at the throttle grip, use the upper and lower nuts at the lower ends of the throttle cables.
- First give the throttle grip plenty of play by turning the adjuster at the grip in fully.
- Remove the fuel tank (see Spark Plug Removal in the Spark Plugs section).
Turn out both upper nuts and turn in both lower nuts at the lower ends of the throttle cables as far as they will go so as to give the throttle grip plenty of play.



- A. Upper Nuts B. Lower Nuts
- C. Decelerator Cable D. Accelerator Cable
- With the throttle grip completely closed, turn out the lower nut and turn in the upper nut of the decelerator cable until the inner cable just becomes tight.

- Turn out the lower nut and turn in the upper nut of the accelerator cable until the correct throttle grip free play is obtained.
- Turn the handlebar from side to side while idling the engine.
- If idle speed varies, the cable may be poorly routed or damaged.

## **WARNING**

Operation with an improperly adjusted, incorrectly routed, or damaged cables could result in an unsafe riding condition.

#### **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 is 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 to its released position.
- 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  $2 \sim 3 \text{ mm}$ (0.08  $\sim$  0.12 in.) at the bottom of the choke lever. If there is too much or too little play, adjust the choke cable.



A. Choke Lever B. 2  $\sim$  3 mm (0.08  $\sim$  0.12 in.)



A. Adjuster

B. Locknut

• Tighten the locknut after adjustment.

#### Adjustment

- Remove the fuel tank (see Spark Plug Removal in the Spark Plugs section).
- Loosen the locknut at the middle of the choke cable, located above the engine, and turn the adjuster until the cable has the proper amount of play.

## 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 to 1,150 ~ 1,250 r/min (rpm) by turning the idle adjusting screw.



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.

#### **AWARNING**

Operation with damaged cables could result in an unsafe riding condition.

### Clutch

Due to friction plate wear and clutch cable stretch over a long period of use, the clutch must be adjusted in accordance with the Periodic Maintenance Chart.

#### **AWARNING**

To avoid a serious burn, never touch a hot engine or exhaust pipe during clutch adjustment.

#### Inspection

• Check that the clutch lever has 2  $\sim$  3 mm (0.08  $\sim$  0.12 in.) of play as shown in the figure.



A. Adjuster B. Locknut C. 2  $\sim$  3 mm (0.08  $\sim$  0.12 in.)

If it does not, adjust the lever play as follows.

#### Adjustment

- Loosen the locknut at the clutch lever.
- Turn the adjuster so that the clutch lever will have 2  $\sim$  3 mm (0.08  $\sim$  0.12 in.) of play.

#### AWARNING

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, resulting in a hazardous riding condition.

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



A. Mounting Nuts

## NOTE

- After the adjustment is made, start the engine and check that the clutch does not slip and that it releases properly.
- For minor corrections, use the adjuster at the clutch lever.

## **Drive Chain**

The drive chain must be checked, adjusted, and lubricated 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.

Chain Slack Inspection

- Set the motorcycle up on its center 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. 35 ~ 45 mm (1.4 ~ 1.8 in.)

 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	$35 \sim 40 \text{ mm}$
Stanuaru	(1.4 ~ 1.6 in.)

## Chain Slack Adjustment

- Remove the safety clip from the rear torque link nut.
- Loosen the rear torque link nut.

## CAUTION

Do not forget to loosen the torque link nut.



A. Torque Link Nut B. Safety Clip

Loosen the left and right chain adjuster locknuts.



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

- Remove the cotter pin, and loosen the axle nut.
- 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, and kick the wheel forward.
- Turn in 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.

## AWARNING

Misalignment of the wheel will result in abnormal wear, and may result in an unsafe riding condition.

- Tighten both chain adjuster locknuts.
- Center the brake panel assembly in the brake drum. This is done by tightening the axle nut lightly, spinning the wheel, and depressing the brake pedal forcefully. The partially tightened axle nut allows the brake panel assembly to center itself within the brake drum.

## NOTE

- This procedure can prevent a soft or "spongy feeling" brake.
- Tighten the axle nut to the specified torque.

## **Tightening Torque**

Axie Nut:

98 N·m (10 kg·m, 72 ft·lb)

Torque Link Nut:

34 N·m (3.5 kg·m, 25 ft·lb)

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

## AWARNING

If the axle nut or torque link nut is not securely tightened, or the cotter pin or safety clip is not installed, an unsafe riding condition may result.

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

### Wear Inspection

- 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.



A. Measure

B. Weight

 If the length exceeds the service limit, the chain should be replaced.

### Drive Chain 20-Link Length

Service Limit: 323 mm (12.7 in.)

#### AWARNING

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 installation. See Service Manual for wear limits.



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

#### 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 described above.

### **Brakes**

#### Brake Wear Inspection

In accordance with the Periodic Maintenance Chart, inspect the brakes for wear. For the front 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.



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



A. USABLE RANGE B. Brake Lining Wear Indicator

### **Disc Brake Fluid:**

In accordance with the Periodic Maintenance Chart, inspect the brake fluid level in the brake fluid reservoir for the front brake 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 D.O.T.4.

## CAUTION

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 reservoir must be kept above the lower level line (reservoir held horizontal).



- A. Lower Level Line
- If it is lower than the level line, fill the reservoir to the upper level line inside the reservoir.



A. Upper Level Line

## AWARNING

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.

#### Fluid Change

Have the brake fluid changed by an authorized Kawasaki dealer.

#### Front Brake:

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

### AWARNING

If the brake lever feels mushy when it is applied, there might be air in the brake lines or the brake may be defective. Since it is dangerous to operate the motorcycle under such conditions, have the brake checked immediately by an authorized Kawasaki dealer.

#### **Rear Brake:**

Brake pedal position can be adjusted to suit you. In accordance with the Periodic Maintenance Chart, inspect the brake pedal play.

#### Pedal Position Inspection

• When the brake pedal is in its rest position, it should be  $0 \sim 20 \text{ mm} (0 \sim 0.8 \text{ in.})$  lower than the top of the footpeg.



A. Rear Brake Pedal B.  $0 \sim 20$  mm ( $0 \sim 0.8$  in.)

• If it is not, adjust the pedal position.

#### Pedal Position Adjustment

- Loosen the locknut, and turn the adjusting bolt to adjust the pedal position.
- Tighten the locknut.



A. Adjusting Bolt B. Locknut

• Check the brake pedal play and operation of the rear break light switch.

#### Pedal Play Inspection

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



A. Rear Brake Pedal B. 20  $\sim$  30 mm (0.8  $\sim$  1.2 in.)

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

#### Pedal Play Adjustment

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



A. Adjusting Nut

## **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 about 15 mm (0.6 in.) of pedal travel.



A. Brake Pedal B. 15 mm (0.6 in.)

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

#### Adjustment

 To adjust the rear brake light switch, move the switch up or down by turning the adjusting nut.

## CAUTION

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



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

# Rear Shock Absorbers

## Spring Adjustment

The spring adjusting sleeve on each rear shock absorber has 5 positions so that the spring can be adjusted for different road and loading conditions.



A. Adjusting Sleeve

If the spring action feels too soft or too stiff, turn each adjusting sleeve by using the wrench in the tool kit in accordance with the following table:

Position	1	2	3	4	5
Spring Action		$\rightarrow$	St	rong	er

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



A. Wrench

#### **WARNING**

If both spring adjusting sleeves are not adjusted equally, handling may be impaired and a hazardous condition may result.

## NOTE

 Be sure to turn back the adjuster counterclockwise from position 5 when softening the spring action.

### 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.

## AWARNING

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 181 kg (400 lb), including rider, passenger, baggage, and accessories.

- Remove the air valve cap.
- Check the tire pressure often, using an accurate gauge.
- Make sure that the air valve cap is securely installed.

## 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	Up to 181 kg	225 kPa (2.25	
TION	Load (400 lb)	ka/cm <sup>2</sup> , 32 psi)	
Rear	Up to 97.5 kg	250 kPa (2.50	
. ioui	(215 lb) Load	ka/cm <sup>2</sup> , 36 psi)	
	97.5 ~ 181	000 1 D (0.00	
	kg (215 $\sim$	280 KPa (2.80	
	400 lb) Load	kg/cm <sup>2</sup> , 41 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
Tom		(0.04 in.)
Rear	Under 130 km/h	2 mm
	(80 mph)	(0.08 in.)
	Over 130 km/h	3 mm
	(80 mph)	(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

- Most counters may have their own regulations requiring a minimum tire thread depth; be sure to follow them.
- Have the wheel balance inspected whenever a new tire is installed.

## AWARNING

To ensure sale handling and stability, use only the recommended standard tires for replacement, inflated to the standard pressure. Tires that have been punctured and repaired do not have the same capabilities as undamaged tires. Do not exceed 100 km/h (60 mph) within 24 hours after repair, and 180 km/h (110 mph) at any time after that.

## NOTE

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

#### Standard Tire (Tubeless)

	110/70-17 54 H
Front	DUNLOP "GT501FG"
	BRIDGESTONE
	"BATTLAX BT45F"
Rear	130/70-17 62 H
	DUNLOP "GT501G"
	BRIDGESTONE
	"BATTLAX BT45R"

#### **WARNING**

Use the same manufacturer's tires on both front and rear wheels.

#### **AWARNING**

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.

Since the electrical system of this motorcycle is designed to use only a sealed battery, do not replace it with a conventional battery.

## CAUTION

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.

## Battery Removal

- Remove the seat.
- Take off the screws and remove the tool kit compartment.



A. Tool Kit Compartment

**B. Screws** 

• Disconnect the leads 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 lead connections are clean.

## Battery Installation

Put the battery in the battery case.

- Connect the capped lead to the (+) terminal, and then connect the black lead to the (-) terminal.
- Put a light coat of grease on the terminals to prevent corrosion.
- Cover the (+) terminal with its protective cap.
- Reinstall the parts removed.

## **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 in or out until the beam points straight ahead.



A. Horizontal Adjuster B. Vertical Adjuster

### 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 adjusting screw in or out to adjust the headlight vertically.

## NOTE

On high beam, the brightest point should be slightly below horizontal with the motorcycle on its wheels and the rider seated. Adjust the headlight to the proper angle according to local regulations.



#### Fuses

Fuses are arranged in the junction box located under the seat. The main fuse is mounted on the starter relay inside the right side cover. If a fuse fails during operation, inspect the electrical system to determine the cause, and then replace it with a new fuse of proper amperage.



A. Junction Box B. Fuses

C. Spare Fuses



A. Main Fuse

**B. Starter Relay** 

## AWARNING

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 junction box and main fuse case.

Tolk of	To Ar
Normal	Failed

## **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 headlight cover and the 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.
- 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 <u>cold water</u>. Do not use warm water as it accelerates the chemical reaction of the salt. After drying, apply a corrosion protection spray on all metal and chrome surfaces to prevent corrosion.

## Painted Surfaces

After washing your motorcycle, coat painted surfaces, both metal and plastic, with a commercially available motorcycle/

automotive wax. Wax should be applied once every three months or as conditions require. Avoid surfaces with "satin" or "flat" finishes. Always use nonabrasive products and apply them according to the instructions on the container.

#### Plastic Parts

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

#### CAUTION

Plastic parts may deteriorate and brake 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 and 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.

#### AWARNING

Special care must be taken not to get any rubber protectant on the tire's tread surface when treating tires. This may decrease the tire's ability to maintain contact with the road surface causing the rider to lose control.

#### **Cleaning of Exhaust System:**

## CAUTION

To prevent surface damage, do not clean the exhaust system with chrome polishes or cleaners. Do not use waxes containing cleaners or abrasive cutting agents. Always use a soft cloth when washing and drying the system.

## Washing

The exhaust system must be cooled before washing to prevent water spotting.

- Prepare a mixture of water and mild soap, such as dishwashing detergent.
  Do not use a high alkaline content soap as commonly found at commercial car washes because it leaves a residue.
- Wash the exhaust system with a soft cloth. Do not use an abrasive scouring

pad or steel wool. They will damage the finish.

• Rinse the exhaust system thoroughly.

## Drying

• Dry the exhaust system completely with a soft cloth. Do not run the engine to dry the system or spotting will occur.

## Protecting

- When the system is dry, apply a light coat of WD40, LPS-1, or Bel-Ray 6-in-1 multipurpose oil.
- Wipe off the excess oil.
- The system can be waxed instead of oiled. Use a carnauba type paste wax only. Do not use waxes containing cleaners or abrasive cutting agent. They will damage the finish. Apply wax according to the manufacturer's instructions.
## 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

Motor 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. Empty the carburetors by unscrewing the drain screw at each float bowl. (If left in for a long time, the fuel will break down and could clog the carburetors.)

#### AWARNING

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.

- Remove the empty fuel tank, pour about 250 mL (1/2 pint) of motor oil into the tank, roll the tank around to coat the inner surfaces thoroughly, and pour out the excess oil.
- Remove the spark plugs and spray fogging oil directly into each cylinder. Turn the engine
  over several times with the starter button to coat the cylinder walls. Install the spark plugs.

### **AWARNING**

Do not lean over the engine when performing this procedure. An air/oil mist may be forcibly ejected from the spark plug holes and could get into your eyes. if you do get some in your eyes, wash your eyes immediately with liberal amounts of clean, fresh water. Consult a physician as soon as possible.

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 bag over the muffler 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 bag from the muffler.
- Install the battery in the motorcycle and charge the battery if necessary.
- Make sure the spark plugs are tight.
- Fill the fuel tank with fuel.
- Check all the points listed in the Daily Safety Checks section.
- Lubricate the pivots, bolts, and nuts.

# LOCATION OF LABELS







- 1. Engine Oil and Oil Filter
- 2. Daily Safety Checks
- 3. Brake Fluid (Front)
- \*\*4. Unleaded Gasoline
  - \*\*: only on Australia and UK model







- \*5. Noise Test Information
- \*6. Tire and Load Data
- 7. Important Drive Chain Information
- 8. Battery Poison/Danger
- \*: only on Australia model

1)





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4)

## 5) only on Australia model

STATIONARY NOISE TEST INFORMATION TESTED 90.0 dB(A) AT 4500 r/min Silencing System :Kawasaki heavy Industries, Ltd. Identification :

TE032758N9 C

Î.	TI	RE AND LOAD	) DATA	
the tire only	he stability and handling use of improper tire infl s, or overloading. When t the standard tire. Mainta	characteristics of ation pressures, ove ire tread wears down ain the inflation pr	this motorcycle coul rworn tires, unsuita to the limit, repl essure specified.	d become unsafe i ble replacement ace the tire with
	Air Pressure (Cold)	Size & Make Type		Ninimum Treed Dept
Front	lip to 181 kg (4001be) Load (2. 25kg/cm², 32pa)	DUNLOP 110/70-17N/C 54H GT501FG	BRIDGESTONE 110/70-17M/C 54H BATTLAX BT45F	1 mm (0. 04 in)
Rear	lp to 97.5 kg Load 250kPa (215/ba) K2.50kg/cm <sup>2</sup> ,36pei 97.5-481 kg Load 280kPa	DUNLOP 130/70-17M/C 62H	BRIDGESTONE 130/70-17N/C 62H	Ep to 130 km/h 2 mm (80 mph) (0.06i/ Over 130 km/h 3 mm

TE03277BZ5 C

## 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 35~40mm(1.4~1.6in) measured midway between sprockets on the lower chain run with the motorcycle on the center stand. The standard chain is an Enuma EK520MVXL with estimated service life of 15000~45000km(9400~28000mi), depending on the servicy use and the frequency of lubrication and adjustment. For safety, replace the chain with only the standard chain any time it wears to over 323m(12.7in), measured over a 20-link portion pulled straight with 98M(10kgf, 201bf) of tension. See the Owner's Manual for chain formation.

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# **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.





KAWASAKI HEAVY INDUSTRIES, LTD.