

TABLE OF CONTENTS

Specifications 4
Consumer Information 7
Serial Number Locations 8
Location of Parts 9
Location of Caution Labels 12
Loading Information 15
General Information 18
Brake Lever and Pedal 18
Shift Pedal 19
Clutch Lever 20
Throttle Grip 20
Indicator Lights 20
Key 22
Ignition Switch and Main Switch 22
Speedometer and Tachometer 24
Fuel Gauge 25
Water Temperature Gauge 25
Right Handlebar Switch 26
Starter Button 26
Engine Stop Switch 26
Left Handlebar Switch 27
Dimmer Switch 27
Hazard Switch 27
Automatic Turn Signal Cancel Switch 28
Turn Signal Switch 28
Horn Button 28
Choke Lever 29
Fuses 29
Fuel Tank Cap 30
Fuel Tank 30
Fuel Tap 31
Stands 32
Steering Lock 33
Seat Lock 33
Document Container 34
Tool Kit 34
Electric-Accessory Leads 35
Helmet Hooks 36
Breaking In 37
How to Ride the Motorcycle 38
Starting the Engine 38
Moving Off 39
Shifting Gears 39

Braking 40
Stopping the Engine 40
Stopping the Motorcycle in an Emergency 41
Safe Operation 42
Safe Riding Technique 42
Daily Safety Checks 44
Additional Considerations for High Speed Operation 46
Maintenance and Adjustment 47
Periodic Maintenance Chart 48
Engine Oil 50
Coolant 53
Final Gear Case Oil 57
Spark Plug Maintenance 59
Valve Clearance Inspection 60
Kawasaki Clean Air System Maintenance 65
Air Cleaner Maintenance 66
Throttle Cable Adjustment 68
Carburetor Adjustment 71
Clutch Adjustment 72
Brakes and Brake Light Switches 74
Front Brake and Front Brake Light Switch 74
Rear Brake and Rear Brake Light Switch 75
Disc Brake Fluid 78
Pad Replacement 79
Steering Inspection 80
Front Fork Maintenance 81
Rear Shock Absorbers 83
Wheel Inspection 86
Battery Maintenance 90
Headlight Beam Adjustment 93
Bulb Replacement 95
Fuel System Cleaning 97
Lubrication 98
Cleaning 103
Bolt and Nut Tightening 104
Storage 107
Troubleshooting Guide 109
Maintenance Record 111
Wiring Diagram ..... Inside back cover

SPECIFICATIONS

PERFORMANCE	
Maximum Horsepower	120 HP @8,000 rpm (r/min)
Maximum Torque	11.8 kg-m (85.3 ft-lbs) @6,500 rpm (r/min)
Minimum Turning Radius	2.8 m (110.2 in)
Braking Distance	12 m from 50 kph (39.4 ft from 31 mph)
DIMENSIONS	
Overall Length	2,295 mm (90.4 in)
Overall Width	905 mm (35.6 in)
Overall Height	1,280 mm (50.4 in)
Wheelbase	1,580 mm (62.2 in)
Road Clearance	150 mm (5.9 in)
Dry Weight	297 kg (655 lbs)
ENGINE	
Type	DOHC 6 cylinder, 4-stroke, water-cooled
Displacement	1,286 cc (78.48 cu in)
Bore x Stroke	62.0 x 71.0 mm (2.44 x 2.80 in)
Compression Ratio	9.9
Starting System	Electric starter
Carburetors	MIKUNI BSW32 x 3
Cylinder Numbering Method	Left to right, 1-2-3-4-5-6
Firing Order	1-5-3-6-2-4

Ignition System	Battery and coil (Transisstorized ignition)
Ignition Timing (Electrically advanced)	10° BTDC @850 rpm (r/min)~ 33° BTDC @2,800 rpm (r/min)
Spark Plugs	NGK BP6ES or ND W20EP-U
©	NGK BPR6ES or ND W20EPR-U
Lubrication System	Forced lubrication (wet sump)
Engine Oil	SE class SAE 10W40, 10W50, 20W40, or 20W50
Engine Oil Capacity	6.2 ℓ (6.6 US qt)
Coolant Capacity	3.5 ℓ (3.7 US qt)
TRANSMISSION	
Type	5-speed, constant mesh, return shift
Clutch	Wet, multi disc
Primary Reduction Ratio	1.84 (32/24 x 29/21)
Final Reduction Ratio	2.65 (20/24 x 35/11)
Overall Drive Ratio	4.55 (@5th gear)
Gear Ratio: 1st	2.29 (39/17)
2nd	1.67 (35/21)
3rd	1.28 (32/25)
4th	1.07 (29/27)
5th	0.93 (27/29)
Final Gear Case Oil	API GL-5 SAE 90 [above 5°C (41°F)] SAE 80 [below 5°C (41°F)]
Final Gear Case Oil Capacity	0.25 ℓ (0.26 US qt)

FRAME		
Castor		28°
Trail		100 mm (3.9 in)
Tire Size:	Front	MN90-18
	Rear	MT90-17
Fuel Tank Capacity		20.5 ℓ (5.4 US gal)
ELECTRICAL EQUIPMENT		
Battery		12V 20AH
Headlight		12V 60/55W
Tail/Brake Lights		12V 8/27W
Turn Signal/Running Position Lights		12V 23/8W
Turn Signal Lights		12V 23W
Meter Lights		12V 3.4W
Neutral Indicator Light		12V 3.4W
Turn Signal Indicator Lights		12V 3.4W
High Beam Indicator Light		12V 3.4W
Oil Pressure/Level Warning Light		12V 3.4W
Headlight Failure Indicator Light		12V 3.4W
Gauge Light		12V 3.4W
Horns		12V 2.5A
Fuses		30A, 10A x 3, 2A

© Canadian Model

Specifications subejct to change without notice.

Vehicle Minimum Stopping Distance on Dry Pavement

These figures indicate braking performance that can be met or exceeded by the vehicle to which they apply, without locking the wheels, under different conditions of loading. The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions, and the information may not be correct under other conditions.

Description of vehicle to which this table applies: Model KZ1300-A3

A. Fully Operational Service Brake

Load: Light — 165

Maximum — 177

0 50 100 150 200

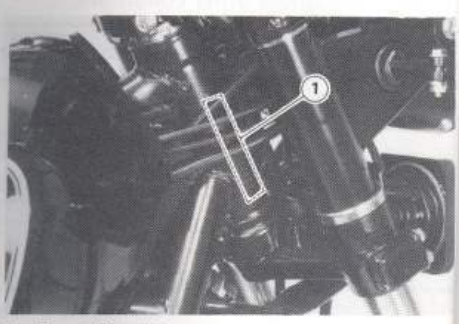
Stopping distance in feet from 60 mph.

Manufacturer: **Kawasaki Heavy Industries, Ltd.**

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.

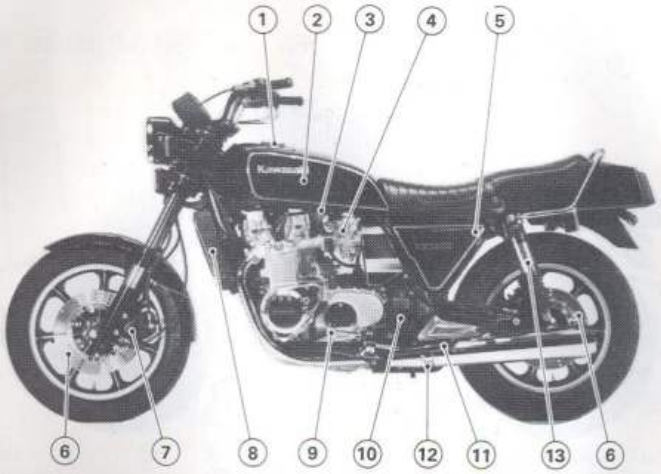


1. Engine Number

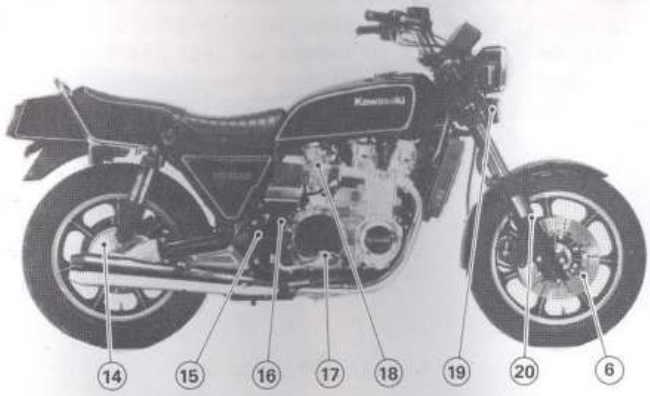


1. Frame Number

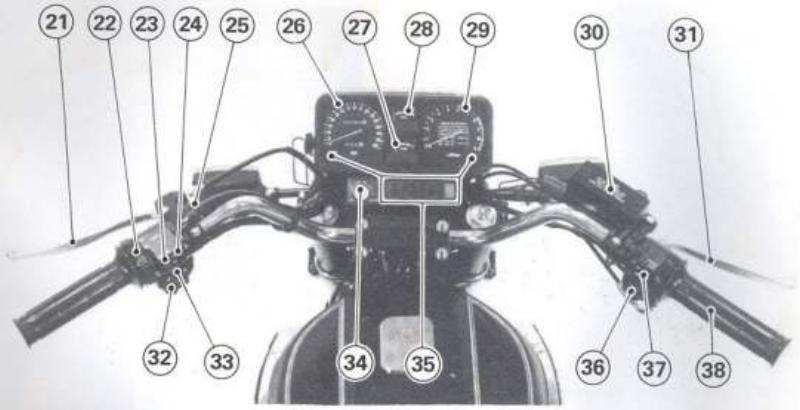
LOCATION OF PARTS



1. Fuel Tank Cap
2. Fuel Tank
3. Fuel Tap
4. Choke Lever
5. Main Switch
6. Disc
7. Caliper
8. Radiator
9. Shift Pedal
10. Coolant Tank
11. Side Stand
12. Center Stand
13. Rear Shock Absorber

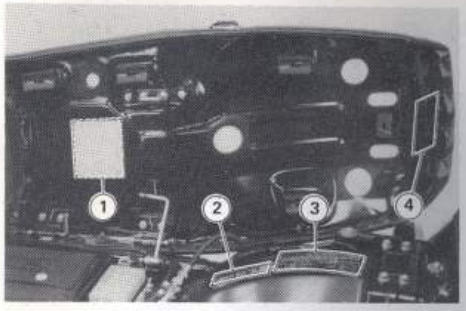


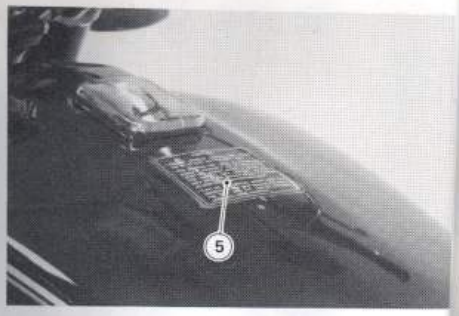
14. Final Gear Case
15. Rear Brake Light Switch
16. Brake Fluid Reservoir (Rear)
17. Rear Brake Pedal
18. Carburetor
19. Horn
20. Front Fork



21. Clutch Lever
22. Dimmer Switch
23. Hazard Switch
24. Automatic Turn Signal Cancel Switch
25. Starter Lockout Switch
26. Speedometer
27. Water Temperature Gauge
28. Fuel Gauge
29. Tachometer
30. Brake Fluid Reservoir (Front)
31. Front Brake Lever
32. Horn Switch
33. Turn Signal Switch
34. Ignition Switch
35. Indicator Lights
36. Starter Switch
37. Engine Stop Switch
38. Throttle Grip

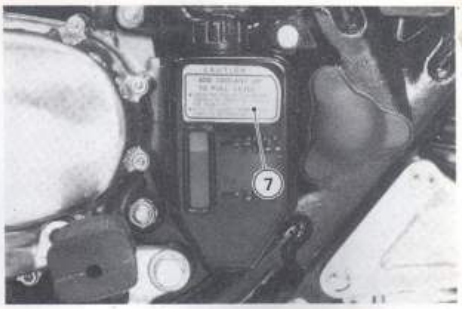
LOCATION OF CAUTION LABELS





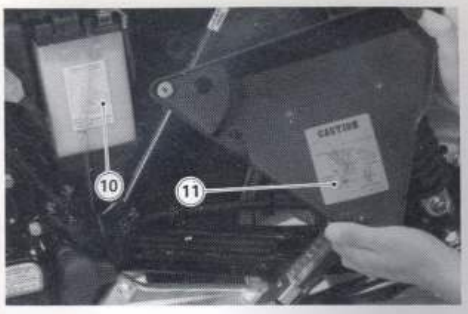
1. Emission Control Information
2. Engine Oil and Oil Filter
3. Tire and Load Data
4. Daily Safety Checks
5. Engine Oil Warning
6. Break-In Caution
7. Coolant Caution
8. Air Suspension Caution
9. Radiator Cap Danger

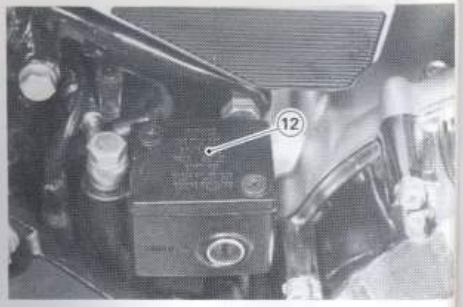


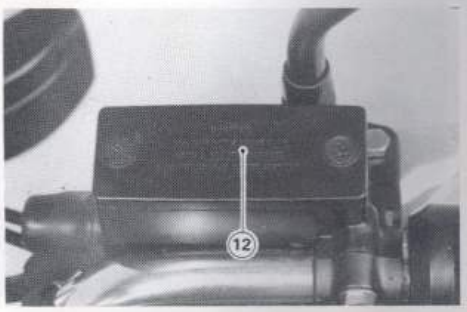












10. Battery Poison/Danger
11. Battery Vent Hose Routing
12. Brake Fluid Warning

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 (refer to page 87 for maximum load information) 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, sudden movements, and by interfering with the operator. You should instruct any passenger before riding to keep his feet on the passenger footpegs, sit still while the motorcycle is in motion, and not to interfere with the operation of the motorcycle. Do not carry animals on your motorcycle.

2. 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.

3. 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.

4. 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.

5. Do not install accessories or carry baggage that impairs the performance of the motorcycle. Make sure that you have not adversely affected any lighting component, road clearance, banking capability (i.e., lean angle), control operation, wheel travel, front fork movement, or any other aspect of the motorcycle's operation.

6. Weight attached to the handlebar or front fork will increase the mass of the steering assembly and can result in an unsafe riding condition.

7. 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.

8. 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 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.

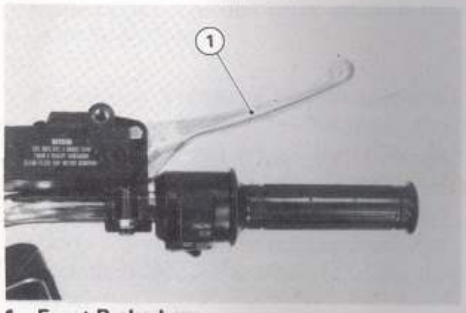
Brake Lever and Pedal

The lever on the right side of the handlebar operates the front brake, and the foot pedal on the right side operates the rear brake.

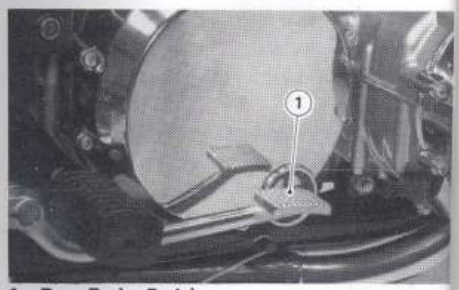
The front and rear brakes are hydraulic disc brake type. The reservoirs must be kept filled with disc brake fluid or the brakes will not operate.

See Pg. 78 for a list of recommended brake fluids and for other important brake information.

When either the front or rear brake is applied, the brake light goes on.



1. Front Brake Lever



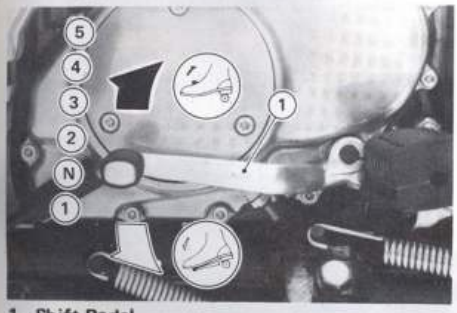
1. Rear Brake Pedal

Shift Pedal

The transmission is a 5-speed, return shift type with neutral halfway between 1st and 2nd gears.

A "return shift" means that to go back to 1st gear from a higher gear, you must return the way you came, shifting back through the gears one by one.

To shift to the next higher gear; disengage the clutch (i.e., pull the clutch lever in), lift the shift pedal up as far as it will go, and then release it. To shift to the next lower gear; disengage the clutch, push the shift pedal down as far as it will go, and then release it. If the engine is stopped, releasing the clutch lever and rolling the motorcycle slightly while shifting will help shifting back to neutral.



1. Shift Pedal

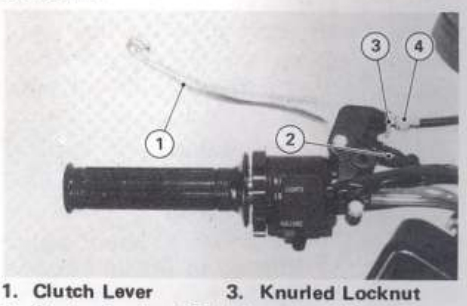
The transmission is equipped with an automatic neutral finder. When the motorcycle is standing still, the transmission cannot be shifted past neutral from first gear. To use the automatic neutral finder, shift down to first gear, then lift up on the shift pedal while standing still. The transmission will shift only into neutral.

When the transmission is in neutral, the green neutral indicator light will be lit.

CAUTION **Make it a point when shifting to lift up or push down the shift pedal fully. If shifting is done carelessly, the transmission may jump out of gear, causing overrev damage to the engine.**

Clutch Lever

The clutch lever on the left side of the handlebar disengages the clutch when pulled in.



1. Clutch Lever
2. Starter Lockout Switch
3. Knurled Locknut
4. Adjuster

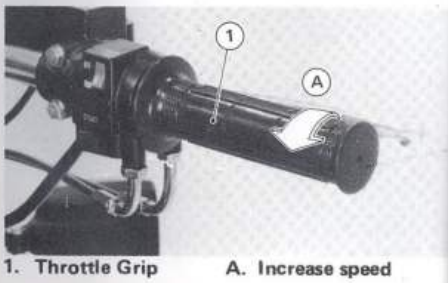
Throttle Grip

The throttle grip controls the throttle. Twisting the throttle grip counterclockwise raises engine speed, twisting it clockwise lowers engine speed.

Indicator Lights

NEUTRAL: When the gears are in neutral, the neutral indicator light is lit.

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

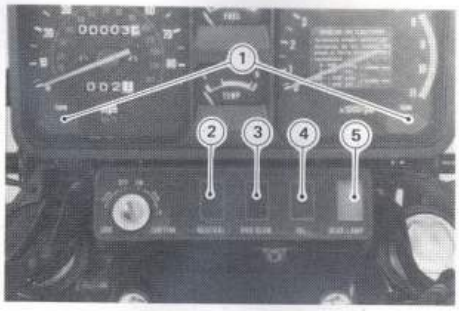


1. Throttle Grip
A. Increase speed

TURN: When the turn signal switch is turned to left or right, one of the turn signal indicator lights flashes on and off.

HEAD LAMP: If either the high or low beam burns out, the reserve lighting system switches over to the remaining filament automatically, and lights the headlight failure indicator light to show that the headlight bulb must be replaced.

OIL: The oil pressure/level warning light warns low oil pressure and level in the engine. With the motorcycle held perpendicular to the ground, if the warning light comes on when the ignition switch is turned on and then goes off after engine starting off, both the oil pressure and the oil level are normal. If the warning light goes on continuously after engine starting, it shows the low oil pressure or level, necessitating oil level and engine inspection. If the warning light comes on during riding, it shows low oil pressure. Refer to Pg. **50** for more detail/ engine oil information.



1. **Turn Signal Indicator Lights**
2. **Neutral Indicator Light**
3. **High Beam Indicator Light**
4. **Oil Pressure/Level Warning Light**
5. **Headlight Failure Indicator Light**

Key

This motorcycle has a combination key, which is used for the ignition switch, main switch, and fuel tank cap.

Blank keys are available at your Kawasaki Dealer. Ask your Dealer to make any additional spare keys you may need, using your original key as a master.

Ignition Switch and Main Switch

This motorcycle has double switch system; ignition switch and main switch. The ignition switch key can be removed from the switch when it is in the **OFF**, **LOCK**, or **P(PARK)** position.

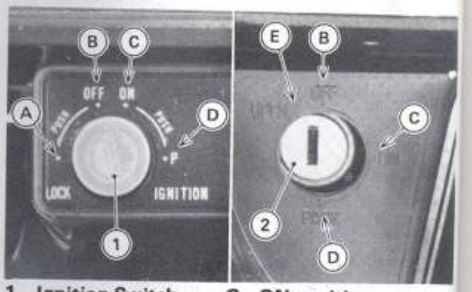
Note: The head, tail, and running position lights are on whenever the ignition switch and main switch are in the **ON** position. To avoid battery discharge, always start the engine immediately after turning the switches to **ON**.

To operate the ignition switch

OFF ① **ON** ② **P(PARK)**

② **LOCK**

1. Turn.
2. Push down and turn to **LOCK** or **P(PARK)**.



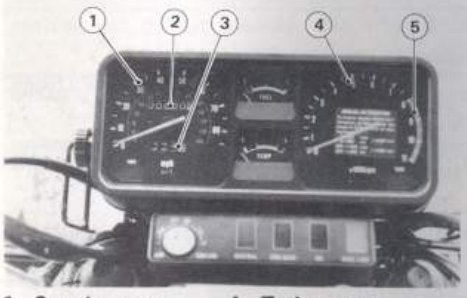
1. **Ignition Switch**
2. **Main Switch**
- **A. LOCK position**
- **B. OFF position**
- **C. ON position**
- **D. P (PARK) position**
- **E. OPEN position**

Ignition Switch	Main Switch	
OFF	OFF or ON	Engine off. All electrical circuits off.
	PARK	Engine off. Tail light on. All other electrical circuits cut off.
ON	OFF or PARK	Engine off. Hazard switch can be used. All other electrical circuits cut off.
	ON	**Engine on.** All electrical equipment can be used.
P (PARK)	OFF or ON	Steering locked. Engine off. Hazard switch can be used. All other electrical circuits cut off.
	PARK	Steering locked. Engine off. Tail light on. Hazard switch can be used. All other electrical circuits cut off.
LOCK	OFF or ON	Steering locked (Pg. 35). Engine off. All electrical circuits cut off.
	PARK	Engine off. Tail light on. All other electrical circuits cut off.
———	OPEN	Seat can be opened.

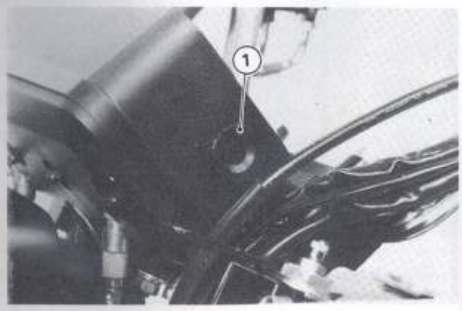
Speedometer and Tachometer

The speedometer shows the speed of the vehicle. In the lower part of the speedometer face is the trip meter, which shows the distance traveled since it was last reset to zero. The trip meter can be reset to zero by turning the reset wheel. In the upper part of the speedometer face is the odometer. The odometer shows the total distance that the vehicle has been ridden.

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



1. Speedometer
2. Odometer
3. Trip Meter
4. Tachometer
5. Red Zone



1. Reset Wheel

CAUTION **Engine rpm (r/min) 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 on the meter panel shows the amount of fuel in the fuel tank. If the needle enters the left side zone, turn the fuel tap lever to **RES**, and refuel at the earliest opportunity.

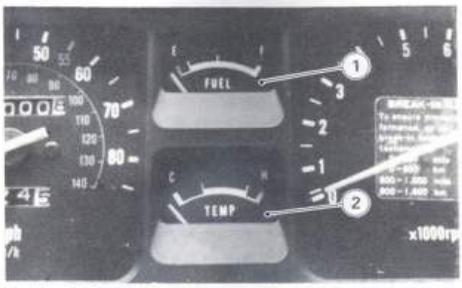
Note: Make certain that the fuel tap is turned to **ON** (Not **RES**), after filling up the fuel tank.

Water Temperature Gauge

This gauge shows the temperature of coolant. Ordinarily, the needle should stay within the white zone. If the needle reaches the "**H**" line, stop the engine and check the coolant level in the reserve tank after the engine cools down (Pg. **53**).

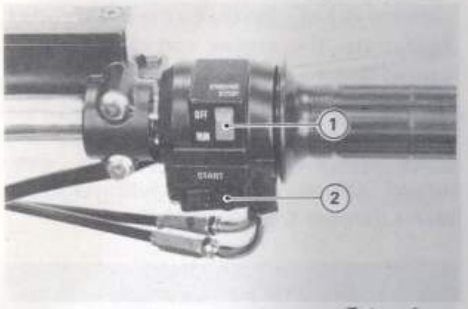
WARNING **Do not open the radiator cap when the engine or radiator is hot. Severe burns could result. Wait until the engine and radiator have cooled down.**

CAUTION **Do not let the engine continue running when the gauge needle reaches the "H" line. Prolonged engine operation will result in severe damage from overheating.**



1. **Fuel Gauge**
2. **Water Temperature Gauge**

Right Handlebar Switch



1. **Engine Stop Switch** 2. **Starter Button**

Starter Button

The button marked **START**, located on the right side of the handlebar, operates the electric starter when pushed with the clutch lever pulled in.

Note: If the clutch lever is pulled, the motorcycle can be started while still in any gear, but be careful to shift down to 1st gear before starting to move.

CAUTION **Refer to the "How to Ride the Motorcycle" section to start the engine (Pg. 38).**

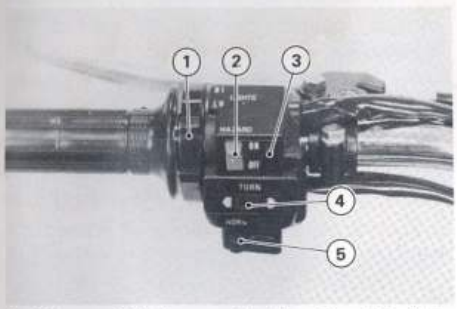
Engine Stop Switch

In addition to the ignition and main switches, the engine stop switch must be in the **RUN** position for the motorcycle to operate.

The engine stop switch is for emergency use. If some emergency requires stopping the engine, flick the engine stop switch to the **OFF** 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.

Left Handlebar Switch



1. Dimmer Switch
2. Hazard Switch
3. Automatic Turn Signal Cancel Switch
4. Turn Signal Switch
5. Horn Button

Dimmer Switch

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

HI.....High beam
LO.....Low beam

Hazard Switch

If some emergency requires you to park on the highway shoulder, turn on the hazard switch to warn other drivers of your location. If you turn the hazard switch to **ON** with the ignition switch **ON**, or in the **PARK** position, all the turn signals will flash on and off.

CAUTION **If you leave the hazard switch on for a long time, the battery may become totally discharged. So be careful not to use the turn signals for more than 30 minutes.**

Automatic Turn Signal Cancel Switch

When the turn signal switch is operated with the automatic turn signal cancel switch in the **ON** position, it is automatically canceled after it has first been on for 4 seconds, and then the motorcycle has traveled an additional 50 m (164 ft).

Turn Signal Switch

The turn signals are operated by the turn signal switch located on the left side of the handlebar.

When the switch is operated, the turn signal indicator light flashes on and off together with the turn signals.

L.....Left
R.....Right

Horn Button

The horns are operated by the horn button located on the left side of the handlebar.

If the horns do not operate properly, check that the battery is good and that the horns are mounted securely with nothing touching them. If the horns themselves are at fault, they should be adjusted, repaired, or replaced immediately.

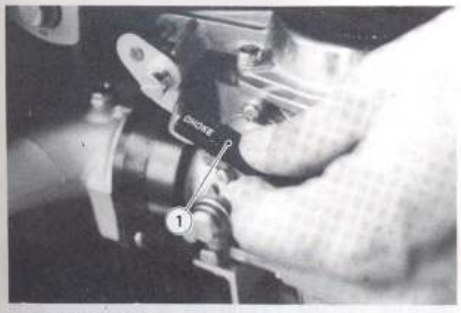
Choke Lever

To provide a rich starting mixture when the engine is cold, there is a choke lever on the left side of the carburetor.

Pull it all the way up and leave it up until the engine is warm. As the engine becomes warm and engine rpm (r/min) increases, push down the choke lever gradually so that engine speed stays below 2,000 rpm (r/min).

Once the engine has sufficiently warmed up and before moving off, push the choke lever all the way down.

Note: If the choke lever is left pulled up after the engine is warm, it will cause spark plug fouling and poor fuel economy. For more detailed information, read "How to Ride the Motorcycle" (Pg. 38).



1. Choke Lever

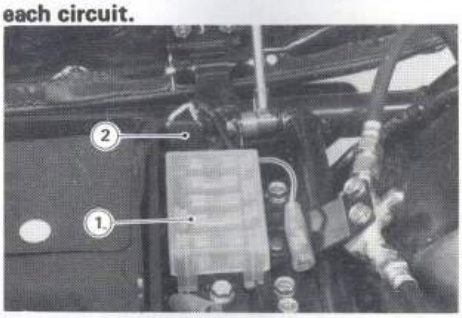
Fuses

The two fuse boxes are located under the seat. If a fuse blows during operation, inspect the electrical system to determine the cause, and then replace the fuse.

CAUTION

○Do not use any substitute for the standard fuse.

○Replace the fuse with one of the correct capacity, as specified in the fuse box for each circuit.

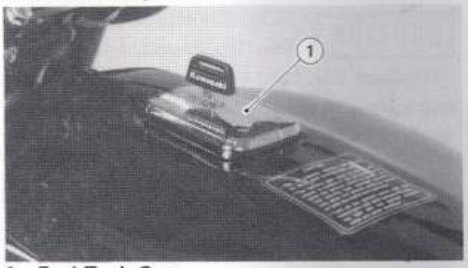


1. Fuse Box for Main Circuit
2. Fuse Box for Electric-Accessory Leads

Fuel Tank Cap

To open the fuel tank cap, insert the ignition switch key into the cap, turn the key to the right, and open the cap.

The fuel tank cap is locked when pushed back into place.



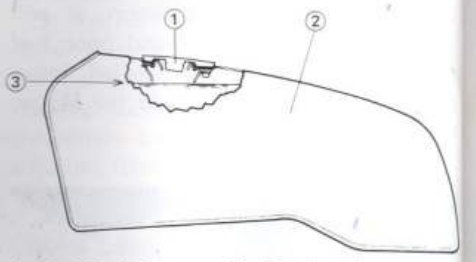
1. Fuel Tank Cap

Fuel Tank

The following octane rating gasoline is recommended in the fuel tank. Avoid filling the tank in the rain or where heavy dust is blowing so that the fuel does not get contaminated.

WARNING

○Never fill the tank completely to the top! As the fuel expands in a warm tank, it may overflow from the vents in the tank cap.



1. Fuel Tank Cap
2. Fuel Tank
3. Top Level

○Put in fuel only with the ignition switch key turned off, and the motorcycle away from any source of sparks.

Fuel Requirement

OCTANE RATING.

The octane rating of a gasoline is a measure of its resistance to detonation

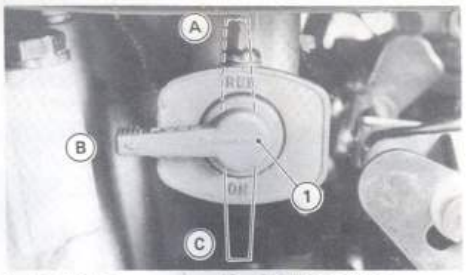
or "knocking". Use a gasoline with an octane rating equal to or higher than that shown in the table below.

Octane Rating Method	Minimum Rating
Antiknock Index $\frac{(RON + MON)}{2}$	87
Research Octane No. (RON)	91

The Antiknock Index is an average of the Research Octane No. (RON) and the Motor Octane No. (MON). The Antiknock Index is posted on service station pumps in the U.S.A. Research Octane No. is a commonly used term describing a gasoline's octane rating.

Fuel Tap

The fuel tap has three positions: **OFF**, **ON**, and **RES** (reserve). If the fuel runs out with the tap in the **ON** position, the last **4.5** ℓ (**1.2** US gal) of fuel can be used by turning the tap to **RES**.



1. Fuel Tap **B. OFF position**
A. RES position **C. ON position**

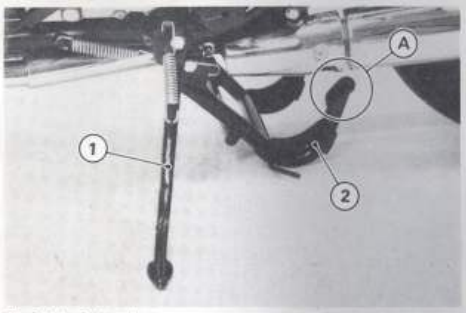
Note: ○Since riding distance is limited when on **RES**, refuel at the earliest opportunity.

○Make certain that the fuel tap is turned to **ON** (Not **RES**), after filling up the fuel tank.

○When the carburetors are completely empty of fuel, pull in the clutch lever for about **5** seconds until the fuel reaches the carburetors and the engine can be started.

Stands

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



1. Side Stand
2. Center Stand **A. Step here**

Note: When using the side stand, turn the handlebar to the left.

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

WARNING **Forgetting and leaving the stand down and riding away could cause an accident.**

To set the motorcycle up on the center stand, first kick down the side stand, then step down firmly on the center stand and lift the motorcycle up and to the rear using the grab rail as a handhold. Don't pull up on the seat to lift it as this will damage the seat.



A. Lift here

Steering Lock

To help prevent theft, the handlebar can be locked in the full left position.

To lock the steering:

1. Turn the handlebar all the way to the left.
2. With the ignition switch key in the **OFF** position, push down and turn the key to the **LOCK** position.
3. Pull the key out.

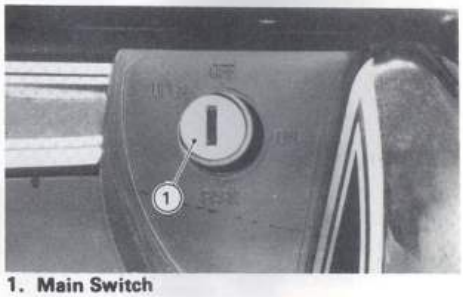


1. Ignition Switch **A. LOCK position**

Seat Lock

To open the seat, move the main switch cover, insert the ignition switch key into the main switch, turn the key to **OPEN**, and swing open the seat.

The seat is locked when pushed back into place.



1. Main Switch

Document Container

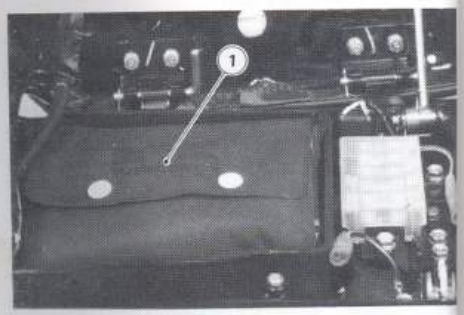
A compartment for the owner's manual and any papers or documents that should be kept with the motorcycle is located in the seat cover.



1. Document Container

Tool Kit

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



1. Tool Kit

Electric-Accessory Leads

The electric power of the battery can be used through the electric-accessory leads regardless of ignition switch position. Observe and follow the notes listed below.

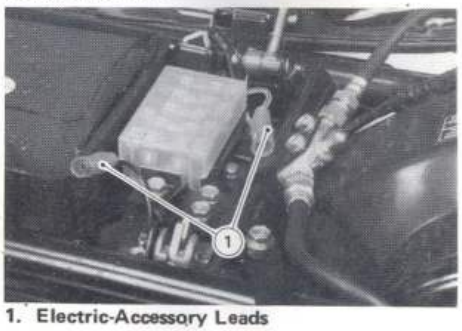
Electric-Accessory Leads

Location	Polarity	Lead Color
Under Seat	+	White/Black
	–	Black/Yellow
Inside Headlight Housing	+	White/Blue
	–	Black/Yellow
Maximum Current: 10 A		

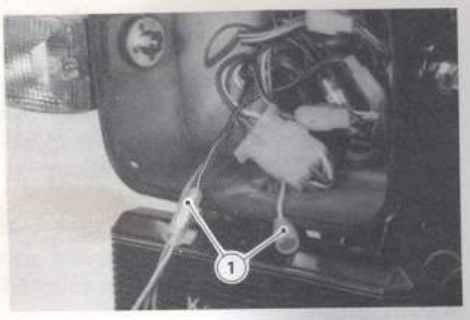
CAUTION **○Whenever you leave the motorcycle, stop using the electric accessories.**

○Be careful not to discharge the battery totally. For example, if the current of 20 amperes are continuously taken out with the engine stopped, even an originally-fully-charged battery may become totally discharged in about 20 minutes.

WARNING **Take care not to pinch any lead between the seat and the frame or between other parts to avoid a short circuit.**



1. Electric-Accessory Leads

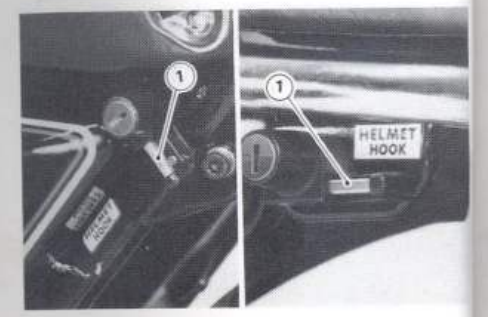


1. Electric-Accessory Leads

Helmet Hooks

The helmets can be secured to the motorcycle using the helmet hooks.

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



1. Helmet Hook

BREAKING 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 rpm (r/min) during the break-in period.

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

- 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 gears are in neutral.

In addition to the above, at 800 km (500 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

- Turn the engine stop switch to **RUN**.
- Turn the ignition switch and main switch to the **ON** position.
- Make certain the gears are in neutral. The green neutral indicator light should be lit.
- If the engine is cold, pull up the choke lever, leaving the throttle completely closed.
- **Push the starter button with the clutch lever pulled in** until the engine starts. Gradually push the choke lever toward the off position as necessary to keep the engine speed below 2,000 rpm (r/min) during warm-up.

Note: With the ignition switch and main switch ON, make certain the oil pressure warning light is lit before the engine starts, and goes off after the engine is started.

- When the engine is already warm up or on hot days [higher than 35°C (95°F)], open the throttle part way instead of using the choke lever, and then start the engine.
- If the motorcycle will not be driven until the engine is completely warmed up, push the choke lever completely off as soon as the engine is warm enough to idle, without use of the choke lever.
- If you drive the motorcycle before the engine is warm, stop using the choke lever as soon as the motorcycle starts moving.

Moving Off

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

Shifting Gears

- Close the throttle while pulling in the clutch lever at the same time.
- 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 below.

Vehicle Speed mph (kph)	0~15 (0~20)	15~20 (20~30)	20~25 (30~40)	25~30 (40~50)	Over 30 (Over 50)
Gear Position	1st	2nd	3rd	4th	5th

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

WARNING **When shifting down to a lower gear, do not shift at such a high speed that the engine rpm (r/min) 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 rpm (r/min) for each gear.**

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 finally in 1st gear just when you get completely stopped.
- When stopping, always apply both brakes at the same time if stopping quickly; normally the front brake should be applied a little more than the rear. Downshift or fully disengage the clutch as necessary to keep the engine from stalling or to stop more quickly.
- Never lock the brakes and cause the tires to skid. When turning a corner it is better not to brake at all, but if this is unavoidable, use only the rear brake.
- For emergency braking, disregard downshifting, and concentrate on applying the brakes as hard as possible without skidding.

Note: 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 gears into neutral.
- Turn the ignition switch off.
- Lock the steering, if only stopping for a short time on the road at night (less than one hour), turn the ignition switch and main switch to the **P(PARK)** position.

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 and insufficient riding skills can create a dangerous situation known as throttle failure. Two of the most common causes of throttle failure are:

1. During removal of the air cleaner by the owner, dirt is allowed to enter and jam the carburetor.
2. A novice may forget which direction the throttle rotates; then jerk the throttle wide open thinking he has shut it off; panic when the machine accelerates suddenly instead of slowing down; and "freeze", holding the throttle wide open.

Kawasaki has provided an engine stop switch or button on all its motorcycles which may be used to safely stop your motorcycle in an emergency. Alternatively, your motorcycle may be stopped by applying the brakes and disengaging the clutch. If the engine stop switch is used, turn off the ignition switch after stopping the motorcycle.

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.

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.

On rainy days, 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 rpm (r/min) 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 your ride. The time required is minimal, and habitual performance of these checks will help ensure you a safe, reliable ride.

WARNING **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: Front, 2.0 kg/cm^2 (28 psi) Rear, [up to 97.5 kg (215 lbs) load] 2.5 kg/cm^2 (36 psi) [97.5~212.5 kg (215~468 lbs) load] [over 210 kph (130 mph)] 2.8 kg/cm^2 (40 psi)
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	Front brake pad wear:	Lining thickness more than 1 mm (0.04 in) left.
	Rear brake pad wear:	Not worn to stepped portion.
	Brake pedal play 8~10 mm (0.32~0.40 in).	
	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.	
Final gear case	No oil leakage.	
Coolant	No coolant leakage.	
	Coolant level between level lines (when engine is cold).	
Radiator cap	Properly installed.	
Electrical equipment	All lights and horn work.	
Engine stop switch	Stops engine.	
Side and center stands	Return to their fully up positions by spring tension.	
	Return springs not weak or not damaged.	

If any irregularities are found during these checks, refer to the Maintenance and Adjustment section, see your dealer, or refer to the Service Manual for the action required to return the motorcycle to a safe operating condition.

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 to the proper pressure, and check the wheel balance.
Spark Plugs	For demanding operation such as racing, install spark plugs with one heat range colder [NGK BP7ES or ND W22EP-U (© NGK BPR7ES or ND W22EPR-U)].
Fuel	Have sufficient fuel for high fuel consumption during high speed operation.
Engine Oil and Final Gear Case Oil	To avoid seizure and resulting loss of control, make certain the oil level is correct.
Coolant	To avoid overheating, check that the coolant level is at the upper level line.
Electrical Equipment	Make certain that the headlight, tail/brake lights, 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.

The maintenance and adjustments outlined in this section 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 the 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.

Note: The Clean Air Act Amendments of 1977 direct the U.S. EPA to adopt replacement parts certification regulations within 2 years. MAINTENANCE, REPLACEMENT OR REPAIR OF THE EMISSION CONTROL DEVICES OR SYSTEMS MAY BE PERFORMED BY ANY MOTORCYCLE REPAIR ESTABLISHMENT OR INDIVIDUAL USING ANY MOTORCYCLE PART WHICH IS CERTIFIED UNDER THOSE REGULATIONS.

Periodic Maintenance Chart

Operation / Frequency	Whichever comes first — Every	**Odometer Reading mi (km) 500 (800)	3,000 (5,000)	6,000 (10,000)	9,000 (15,000)	12,000 (20,000)	15,000 (25,000)	18,000 (30,000)	See Page
Battery electrolyte level—check †	month	●	●	●	●	●	●	●	90
Brake, brake light switch adjustment—check †		●	●	●	●	●	●	●	74
Brake wear—check †			●	●	●	●	●	●	79
Brake fluid level—check †	month	●	●	●	●	●	●	●	78
*Brake fluid—change	year			●		●		●	78
Clutch—adjust		●	●	●	●	●	●	●	72
Carburetors—adjust			●	●	●	●	●	●	71
Throttle cables—adjust		●	●	●	●	●	●	●	68
Steering play—check †		●	●	●	●	●	●	●	80
Front fork—inspect/clean		●	●	●	●	●	●	●	81
Rear shock absorbers—inspect		●	●	●	●	●	●	●	83
Nuts, bolts, fasteners—check and torque		●		●		●		●	104
Spark plugs—clean and gap †		●	●	●	●	●	●	●	59
Valve clearance—check †		●	●	●	●	●	●	●	60
Air suction valve—check †			●	●	●	●	●	●	65
Air cleaner element—clean			●		●		●		66
Air cleaner element—replace	5 cleanings			●		●		●	68

Operation \ Frequency	Whichever comes first / Every	**Odometer Reading mi (km) 500 (800)	3,000 (5,000)	6,000 (10,000)	9,000 (15,000)	12,000 (20,000)	15,000 (25,000)	18,000 (30,000)	See Page
Fuel system—clean		●	●	●	●	●	●	●	97
Tire tread wear—check †			●	●	●	●	●	●	89
Engine oil—change	year	●	●	●	●	●	●	●	51
Oil filter—replace		●		●		●		●	51
General lubrication—perform			●	●	●	●	●	●	98
*Front fork oil—change				●		●		●	83
Swing arm—lubricate				●				●	102
*Wheel bearings—grease	2 years					●			102
*Steering stem bearings—grease	2 years					●			102
*Final gear case oil level—check †				●		●		●	58
Final gear case oil—change		●						●	58
Propeller shaft sliding joints —lubricate				●				●	102
Coolant—change	2 years							●	54
Radiator hoses, connections —check †	year	●		●		●		●	—

*Should be serviced by an authorized Kawasaki Dealer. **For higher odometer readings, repeat at the frequency interval established here. †Replace, add or adjust if necessary.

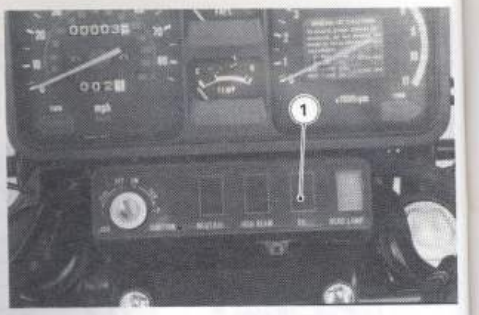
Engine Oil

In order for the engine, transmission, clutch, and front bevel gear to function properly, maintain the engine oil at the proper level, and change the oil in accordance with the periodic maintenance chart (Pg. 49).

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.

○If the oil pressure/level warning light stays on when the engine speed is above 1,200 rpm (r/min), stop the engine immediately and check the engine oil level first. In case of low oil level add oil up to the upper level line. If the warning light still goes on with sufficient oil in the engine, have the engine inspected by your authorized Kawasaki Dealer.



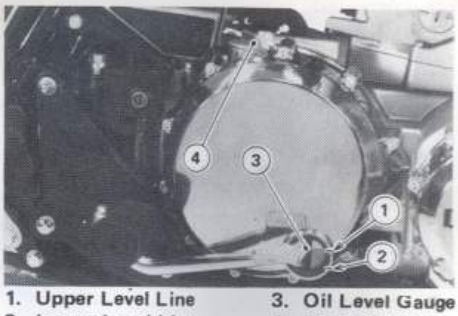
1. Oil Pressure/Level Warning Light

Oil Level

- Situate the motorcycle so that it is perpendicular to the ground (on its center stand).
- If the oil has just been changed, start the engine and let it idle for several minutes. This fills the oil filter with oil. Stop the engine, then wait several minutes until the oil settles.

CAUTION **Run the engine at idle speed at least until the oil pressure warning light turns off. 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 in the lower right side of the engine. With the motorcycle held level or on the center stand, the oil level should come up between the lines next to the gauge.
- If the oil level is too high, remove the excess oil, using a syringe or some other suitable device.
- If the oil level is low, add the correct amount of oil through the oil filler opening. Use the same type and make of oil that is already in the engine.



1. Upper Level Line
2. Lower Level Line
3. Oil Level Gauge
4. Filler Opening

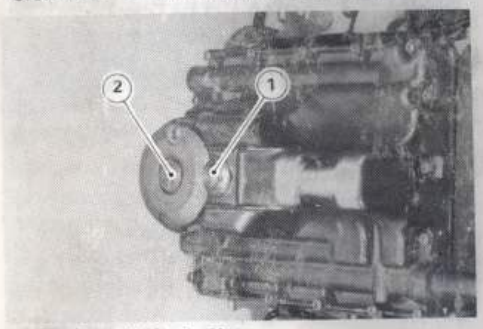
Engine Oil and Oil Filter Change

The engine oil and oil filter must be changed periodically (Pg. 49) to ensure long engine life. Not only do dirt and metal particles collect in the oil, but the oil itself loses its lubricative quality if used too long.

To change the oil and oil filter:

- Warm up the engine thoroughly, and then stop the engine.

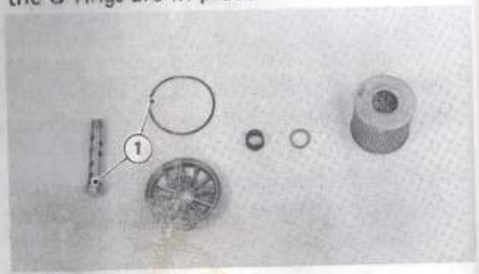
- Position the vehicle on its center stand, and place an oil pan beneath the engine.
- Remove the engine oil drain plug.
- If the oil filter is to be changed, remove the oil filter mounting bolt, drop out the oil filter, and replace the oil filter element. Then install the oil filter.



1. Engine Oil Drain Plug
2. Oil Filter Mounting Bolt

- After the oil has completely drained out, install the drain plugs.
- Fill the engine up to the upper level with SE class SAE 10W40, 10W50, 20W40, or 20W50 motor oil. It will take about 6.2 ℓ (6.6 US qt) when the filter is changed. When the filter is not changed, a refill takes about 5.6 ℓ (5.9 US qt).

Note: ○Check for O rings damage.
○When installing the oil filter, make sure the O rings are in place.



1. O rings

○After the engine has been run and then stopped for a few minutes, the oil level should be between the upper and lower level lines.

Coolant

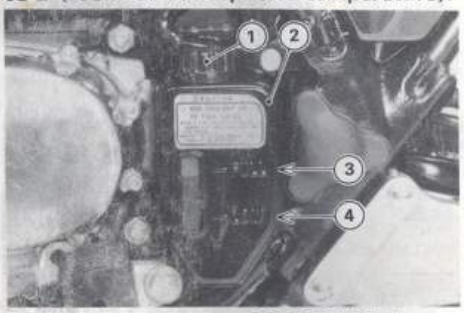
Coolant absorbs excessive heat from the engine and transfers it to the air at the radiator. If the coolant level becomes low, the engine overheats and may suffer severe damage. Check the coolant level each day before riding the motorcycle, and replenish coolant if the level is low. Change the coolant in accordance with the Periodic Maintenance Chart (Pg. 49).

CAUTION **Refer to the Service Manual for detailed information on coolant.**

Coolant Level Inspection

- Situate the motorcycle so that it is perpendicular to the ground (on its center stand).
- Check the coolant level through the coolant level gauge in the reserve tank cover. The coolant level should be between the "FULL" and the "LOW" marks.

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



1. Tank Cap
2. Reserve Tank Cover
3. FULL Mark
4. LOW Mark

- If the amount of coolant is insufficient, unscrew the cap from the reserve tank, and add coolant through the filler opening up to the "FULL" mark. Install the cap.

Note: ○For refilling, add the specified mixture of coolant and soft water. Adding water alone dilutes the coolant

and degrades its anti-corrosion properties. The diluted coolant can attack the aluminum engine parts. In an emergency, soft water can be added. But the diluted coolant must be returned to the correct mixture ratio by addition of coolant concentrate as soon as possible.

○If coolant must be added often, or the reserve tank has run completely dry, there is probably leakage in the cooling system. Check the system for leaks, and repair them following the procedures in the Service Manual.

Coolant Change

WARNING **To avoid burns, do not remove the radiator cap or try to change the coolant when the engine is still hot. Wait until it cools down.**

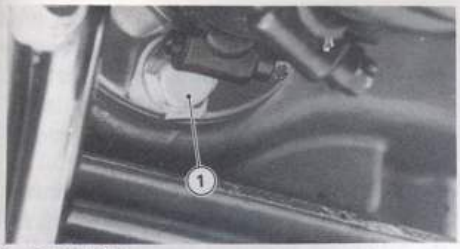
- Set the motorcycle up on its center stand.
- Place a container under the radiator drain plug, and drain the coolant from the radiator by removing the drain plug at the bottom of the radiator. Coolant begins to flow out when the plug is loosened several turns. Immediately wipe up or wash out any coolant that spills on the frame, engine, or wheels.

WARNING **Coolant on tires will make them slippery and can cause an accident and injury.**



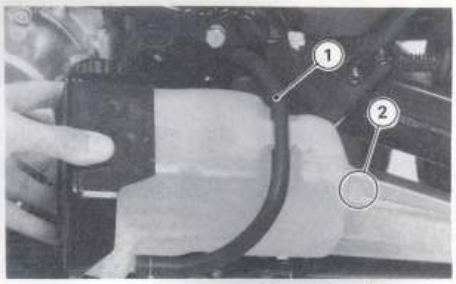
1. Radiator Drain Plug

- Unscrew the drain plug at the water pump cover to drain coolant from the engine.



1. Drain Plug

- Unscrew the cap off the reserve tank, and remove the reserve tank cover by removing the bolt.
- Pull the reserve tank and its cover toward the left of the motorcycle, and pour the coolant into a container.
- Install the reserve tank and its cover, inserting the projection on the tank into the hole at the bottom of the air cleaner housing. Be sure that the breather and reserve tank hoses do not get pinched. The reserve tank hose should be routed into the groove on the tank.



1. Reserve Tank Hose 2. Projection

- Install the drain plugs. Always replace the O ring and gasket with new ones, if they are damaged.

CAUTION **Since the radiator drain plug is made of plastic, avoid damage by not overtightening the plug.**

- Fill the radiator up to the radiator filler neck with coolant, and install the cap, turning it clockwise by about ¼ turn.
- Fill the reserve tank up to the "FULL"

mark with coolant, and install the rubber plug. Total refill will take about 3.5 ℓ (3.7 US qt) after the air inside the system is expelled.

- Before putting the motorcycle into operation, any air trapped in the cooling system must be removed as follows:

Air Bleeding

- Remove the **10A** fuse for the fan motor



1. 10A Fuse 3. Red/White Lead
2. Red/Black Lead

out of the fuse box.

- Start the engine and warm it up by running it at idle [850 rpm (r/min)]. Continue warming up until the water temperature gauge indicates the "H" line.

Note: It will usually take about 15 minutes to reach the above gauge reading. If the gauge needle does not reach the "H" line after 15 minutes, raise the engine rpm (r/min) a little.

CAUTION

- **Do not let the engine continue to run after the gauge needle reaches the "H" line. Prolonged engine operation will result in severe damage from overheating.**
- **When coolant with a low mixture ratio is used, it may boil and overflow from the reserve tank before the gauge reading indicates the "H" line. When the coolant**

level of the reserve tank starts to rise rapidly, stop the engine at once and cool it to keep the coolant from overheating. The air has then been expelled.

- Stop the engine by turning the ignition switch off, and install the 10A fuse in the fuse box.
- Start the engine again, and run the engine until the coolant temperature is normal.

Note: Check coolant level in the reserve tank several times while the engine is cooling down, and replenish as necessary. If the coolant in the reserve tank runs completely out any time during cooling, the air bleeding operation must be repeated from the beginning, since air will have entered the system.

- Stop the engine, and check the coolant level after the engine cools down. Add coolant up to the "FULL" mark.
- Inspect the drain plugs and the radiator cap for leaks.

Final Gear Case Oil

In order for the pinion and ring gears to function properly, maintain the final gear case oil at the proper level, and change the oil in accordance with the Periodic Maintenance Chart (Pg. 49).

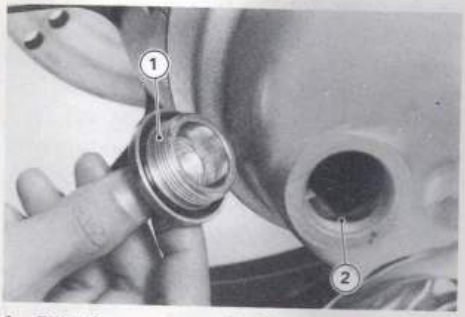
WARNING **Motorcycle operation with insufficient, deteriorated, or contaminated oil causes accelerated wear and may result in seizure of the pinion and ring gears. Seizure can lock the rear wheel and skid the rear tire, with consequent loss of control.**

Oil Level Inspection

- Put the motorcycle on its center stand.
- Remove the filler cap.

CAUTION **Be careful not to allow any dirt or foreign materials to enter the gear case.**

- Check the oil level. If it is insufficient, add oil as necessary. The oil level should come to the bottom thread of the filler opening.



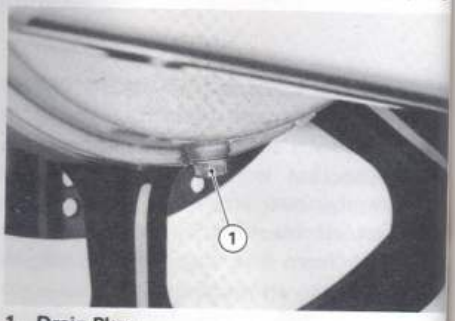
1. Filler Cap 2. Bottom Thread

Note: Use the same type and make of oil that is already in the final gear case.

Oil Change

Note: Final gear case oil drains easily and picks up any sediment when the oil is warmed up by running the motorcycle.

- Situate the motorcycle so that it is perpendicular to the ground.
- Place an oil pan beneath the gear case.
- Remove the filler cap and the drain plug.



1. Drain Plug

WARNING **When draining or filling the gear case, be careful that no oil gets on the tire, rim, or brake disc. Clean off any oil that inadvertently gets on them with a high flash-point solvent.**

- After the oil has completely drained out, install the drain plug and gasket. Replace the damaged gasket with a new one.
- Fill the gear case up to the bottom thread of filler opening with the oil specified below.

Final Gear Case Oil

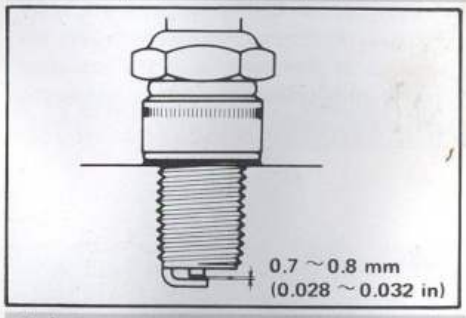
Oil Capacity	about **250** cc (**8.5** US fl oz)
Oil Type	API "GL-5" Hypoid gear oil above **5**°C (**41**°F) SAE 90 below **5**°C (**41**°F) SAE 80

Note: "GL-5" indicates a quality and additive rating. "GL-6" rated hypoid gear oils can also be used.

- Install the filler cap.

Spark Plug Maintenance

The standard spark plug is a **NGK BP6ES** or **ND W20EP-U** (US model), **NGK BPR6ES** or **ND W20EPR-U** (Canadian model). It should have a **0.7** ~ **0.8** mm (**0.028** ~ **0.032** in) gap, and be tightened to **2.8** kg-m (**20** ft-lbs) of torque.



Maintenance

The spark plugs should be taken out periodically for cleaning and to reset the gaps (Pg. **48**). If any 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 or its equivalent.

Valve Clearance Inspection

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

CAUTION **If valve clearance is not adjusted, the 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 if incorrect, adjusted in accordance with the Periodic Maintenance Chart (Pg. **48**) and any time that clearance may have been affected by disassembly.

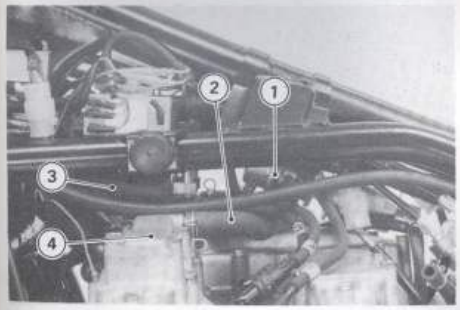
Inspection should be performed periodically and requires no special tools. Adjustment, however, requires a special tool and should be done only by a competent mechanic following the instructions in the Service Manual.

Note: Valve clearance must be checked when the **ENGINE IS COLD.**

To check the valve clearance:

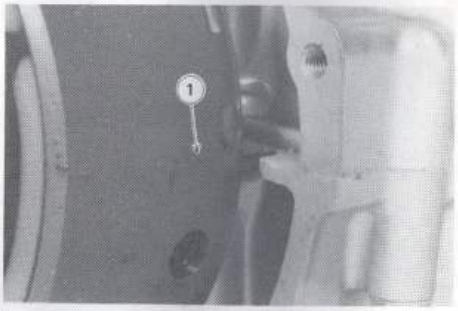
- Remove the fuel tank.
- Remove the spark plug caps from the all plugs.

- Remove the two lower ignition coils.
- Remove the hoses from the air suction valve covers.
- Swing the vacuum switch valve aside so that it does not hinder cylinder head cover removal.
- Remove the right air suction valve cover.



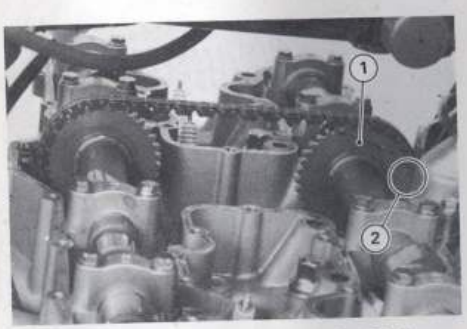
1. Vacuum Switch Valve
2. Hose
3. Ignition Coil
4. Air Suction Valve Cover

- Remove the cylinder head cover towards the left.
- Remove the alternator cover. The cover does not need to be removed completely from the crankcase, so the alternator leads may be left connected.
- Using a 14 mm wrench on the alternator rotor bolt, turn the crankshaft clockwise so that the "T" mark on the rotor is aligned with the crankcase mating surface on the front side of the crankshaft.



1. "T" mark

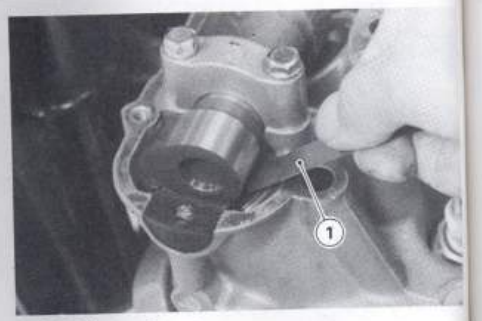
- Check that the timing mark on the exhaust camshaft sprocket is aligned with the cylinder head cover mating surface on the front side of the exhaust camshaft. If the sprocket is not aligned, turn the crankshaft another turn until the "T" mark is aligned with the crankcase mating surface again.



1. Exhaust Camshaft Sprocket
2. Mark

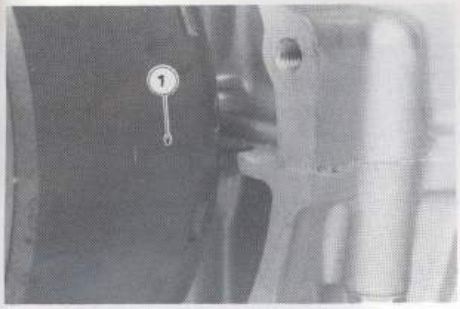
Note: At this position, the #1 (extreme left) piston is at top dead center (TDC) at the end of its compression stroke.

- At this crankshaft (0°) position, measure the clearance between the cam and the shim of the #1 inlet and exhaust valves.



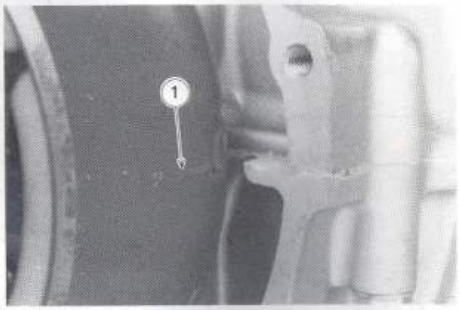
1. Thickness Gauge

- Next turn the crankshaft 1/3 turn (120°) clockwise and align the "1" mark on the rotor with the crankcase mating surface.



1. "1" mark

- At this crankshaft (120°) position, measure the valve clearance of the #4 and #5 inlet and #6 exhaust valves.
- Repeat the preceding step, and measure the remaining valve clearances. Turn the crankshaft $^1/_3$ turn (120°) at a time, and match the "2", "T", or "1" mark on the rotor with the mating surface. Measure the valve clearances specified in the table (Pg. 64) at each crankshaft position.



1. "2" mark

- If the valve clearance is incorrect, ask a competent mechanic to adjust the valve clearance according to the procedures in the Service Manual.
- Install the alternator cover.
- Install the cylinder head cover and right air suction valve cover.

Valve Clearance Measurement Procedure

Crankshaft position degree (turns)	Rotor mark aligned with the mating surface	Appropriate Valves		Valve Clearance (cold) mm (in)	
		Inlet	Exhaust	Inlet	Exhaust
0° (0)	"T"	#1	#1	0.05 ~ 0.15 (0.002 ~ 0.006)	0.15 ~ 0.25 (0.006 ~ 0.010)
120° (1/3)	"1"	#4 and #5	#6		
240° (2/3)	"2"	——	#2 and #3		
360° (3/3)	"T"	#6	——		
480° (4/3)	"1"	#2 and #3	——		
600° (5/3)	"2"	——	#4 and #5		

- Install the ignition coils.
- Swing back the vacuum switch to the correct position, and connect the hoses to the air suction valve covers.
- Install the spark plug caps.
- Install the fuel tank.

Kawasaki Clean Air System Maintenance

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 Valve Inspection

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. Remove and inspect the air suction valves periodically (Pg. 48). Also, remove and inspect the air suction valves whenever stable idling cannot be obtained, engine power is greatly reduced, or there are abnormal engine noises.

To inspect the air suction valve:

Visually inspect the reeds for cracks, folds, warp, heat damage, or other damage. If there is any doubt as to the condition of a reed, replace the air suction valve as an assembly.



Check the reed contact areas of the valve holder for grooves, scratches, any signs of separation from the holder, or heat damage. Check the sealing lip located around the valve holder for the same items. If there is any doubt as to the condition of the reed contact areas or the sealing lip, replace the air suction valve as an assembly.

If any carbon or other foreign particles have accumulated between the reed and the reed contact area, wash the valve assembly clean with a high flash-point solvent.

CAUTION **Do not scrape off the deposits with a scraper as this could damage the rubber, requiring replacement of the suction valve assembly.**

Air Cleaner Maintenance

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

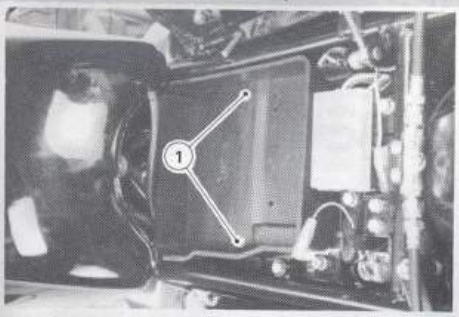
Air Cleaner Element Cleaning

The air cleaner element must be cleaned periodically (Pg. 48). In dusty areas,

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

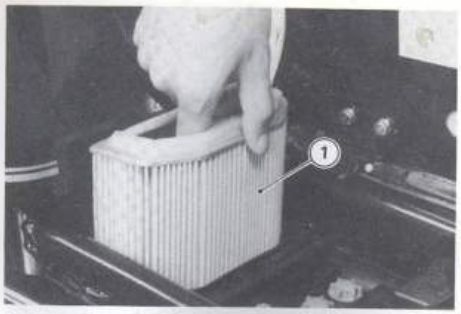
ELEMENT REMOVAL

- Unlock and lift up the seat.
- Remove the tool tray mounting screws, and take off the tool tray.



1. Tool Tray Mounting Screws

- Pull out the element.



1. Air Cleaner Element

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.
- After the element is cleaned, dry it with compressed air or by shaking it.
- Coat the lip of the element with a thick layer of all-purpose grease to assure a complete seal against the tool tray.



CAUTION **○Clean the element in a well-ventilated area, and take ample care that there are no sparks or flame anywhere near the working area.**
○Because of the danger of highly flammable liquids, do not use gasoline or a low flash-point solvent to clean the element.
○A break in the element material or damage to the sponge gasket will allow dirt and dust to pass through into the carburetor and eventually damage the engine. If any part of the element is damaged, the element must be replaced.
○Don't oil the element or carburetion will be upset.

Element Replacement

The element should be changed periodically (Pg. 48) or if it is damaged.

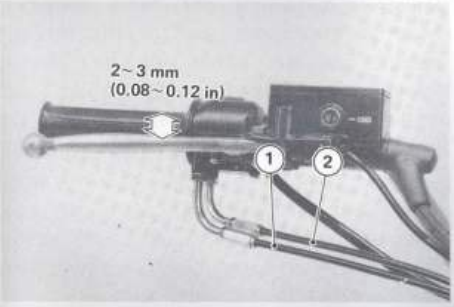
Throttle Cable Adjustment

There are two throttle cables, the accelerator cable for opening the throttle valves, and the decelerator cable for closing them. If the cables are too loose from either cable stretch or maladjustment, the excessive play in the throttle grip will cause a delay in throttle response,

especially at low rpm (r/min). Also, the throttle valves may not open fully at full throttle. On the other hand, if the cables are too tight, the throttle will be hard to control, and the idle speed will be erratic.

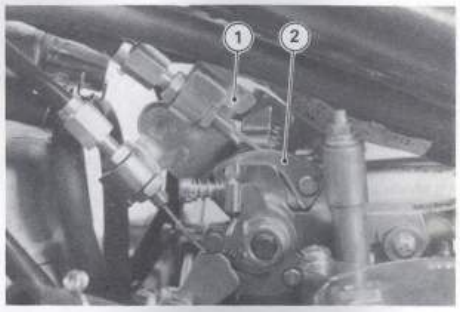
To check the throttle cable adjustment:

- Check that there is 2 ~ 3 mm (0.08 ~ 0.12 in) throttle grip play.



1. Accelerator Cable 2. Decelerator Cable

- Push the throttle grip completely closed. At this time there should be no clearance between the pulley and the cable bracket.

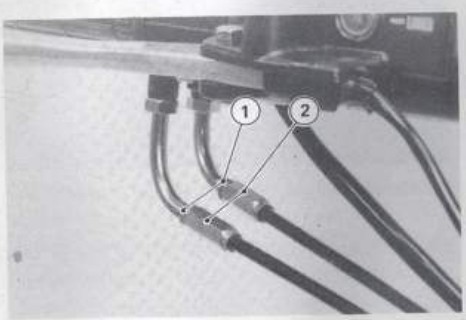


1. Cable Bracket 2. Pulley

Note: This assures that the stress of the throttle grip return will be taken by the pulley, protecting the carburetor linkage mechanism.

If any one of the above checks shows it to be maladjusted, adjust the throttle cables as follows:

- Loosen the locknuts, and turn both throttle cable adjusting nuts in completely at the upper end of the throttle cables so as to give the throttle grip plenty of play.



1. Locknuts 2. Adjusting Nuts

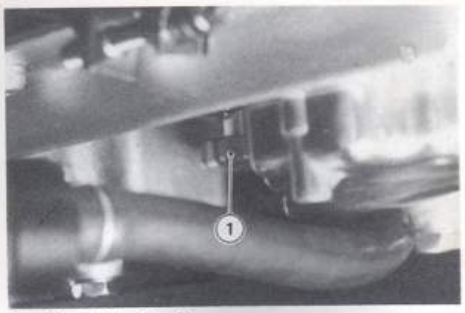
- Turn out the decelerator cable adjusting nut until there is no clearance between the cable bracket and the stop when the throttle grip is completely closed. Tighten the locknut.
- Turn the accelerator cable adjusting nut until 2 ~ 3 mm (0.08 ~ 0.12 in) of throttle grip play is obtained. Tighten the locknut.

Note: ○If the throttle cables cannot be adjusted by using the cable adjusting nuts at the upper end of the throttle cables, use the cable adjusters at the lower end of the throttle cables. Do not forget to securely tighten the adjuster mounting nuts.

○If grip play is excessive, the butterfly valves may not open fully at full throttle. Check to see that the pulley stops against the stop pin on the carburetor body when the throttle grip is fully turned.

Carburetor Adjustment

When the idle speed is too low, the engine may stall. When the idle speed is too high, fuel consumption will be excessive, and the resulting lack of engine braking may make the motorcycle difficult to control. Poor carburetor synchronization causes unstable idling, sluggish throttle response, and reduced engine power and performance.



1. Idle Adjusting Screw

Idle Speed Adjustment

- Start the engine, and warm it up until the water temperature gauge needle enters the white zone.
- Adjust the idle speed to 800 ~ 900 rpm (r/min) by turning the idle adjusting screw.
- Open and close the throttle a few times to make sure that the idle speed does not change. Readjust if necessary.

Note: With the engine idling, turn the handlebar to each side. If handlebar movement changes idle speed, the throttle cables may be improperly adjusted, incorrectly routed, or they may be damaged.

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

Note: If fine adjustment of carburetor synchronization is necessary, have a competent mechanic do the job using vacuum gauges, according to the procedures in the Service Manual.

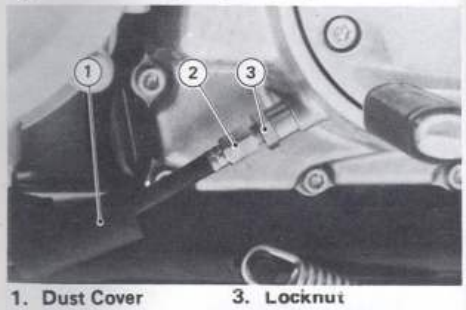
Clutch Adjustment

Due to the friction plate wear and the clutch cable stretching over a long period of use, the clutch must be adjusted periodically (Pg. 48).

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

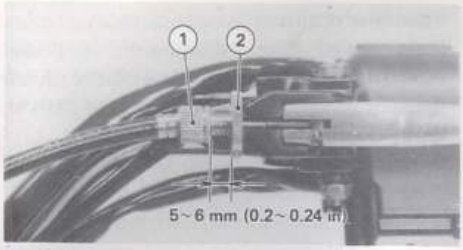
To adjust the clutch:

- Pull the dust cover out of the way, loosen the locknut, and turn the adjuster at the bottom of the clutch cable to give the cable plenty of play.



1. Dust Cover
2. Adjuster
3. Locknut

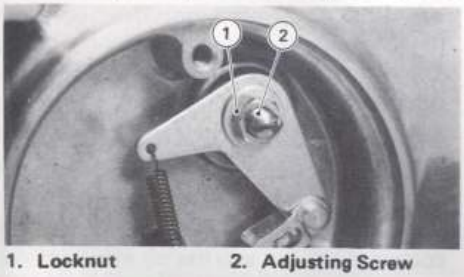
- Loosen the knurled locknut just enough so that the adjuster will turn freely, and then turn the adjuster to make a 5 ~ 6 mm (0.2 ~ 0.24 in) gap between the adjuster and the knurled locknut.



1. Adjuster 2. Knurled Locknut

●Remove the clutch release cover.

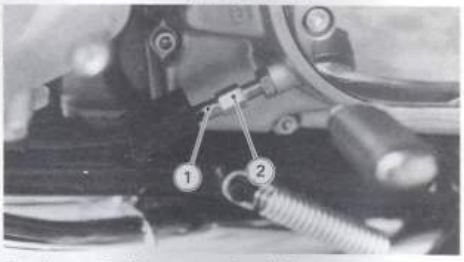
●Loosen the locknut, and back out the clutch adjusting screw a couple of turns.



1. Locknut 2. Adjusting Screw

●Make sure the lower end of the clutch outer cable is properly fitted into the adjuster.

WARNING **If the cable is not fully seated in the adjuster, it could slip into place later and the clutch would not disengage, resulting in a hazardous riding condition.**



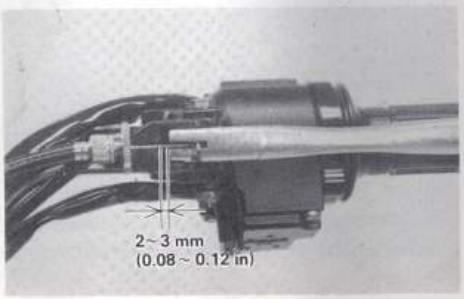
1. Outer Cable 2. Adjuster

●Turn the adjusting screw in until it becomes hard to turn. This is the point where the clutch is just starting to release.

●Back out the adjusting screw ¼ turn from that point, and tighten the locknut without changing the adjusting screw position.

●Take up all the cable play with the adjuster at the bottom of the cable, and then tighten the locknut. Slide the dust cover on to the adjuster.

●Turn the adjuster at the clutch lever so that the clutch lever will have 2 ~ 3 mm (0.08 ~ 0.12 in) of play, and tighten the knurled locknut.



●Install the clutch release cover.

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.

Brakes and Brake Light Switches

Front Brake and Front Brake Light Switch

Disc and disc pad wear is automatically compensated for and has no effect on the

brake lever action. There are no parts that require adjustment on the front brake. However if the brake lever has a soft or "spongy" feeling, check the brake fluid level in the master cylinder and bleed the air from the brake line.

The front brake light switch, mounted on the front master cylinder, operates mechanically and is nonadjustable.

Rear Brake and Rear Brake Light Switch

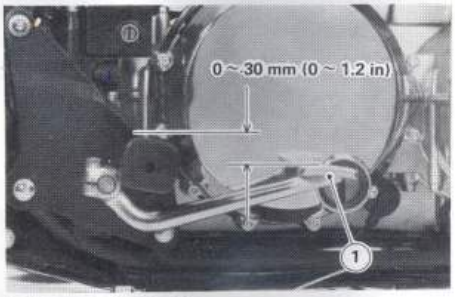
Disc and disc pad wear is automatically compensated for and has no effect on brake pedal action. However, the brake pedal may occasionally require adjustment due to wear inside the pedal assembly itself, or in case of disassembly. Excessive play must be taken up to keep the braking action lag time to a minimum, but enough play must be left to ensure a full braking stroke.

Note: Before adjusting the brakes, be sure that air is bled from the brake lines.

The rear brake light switch, activated by a lever mounted to the master cylinder push rod, requires periodic adjustment to compensate for any change of the push rod position.

To check the brake pedal position:

- When the brake pedal is in its rest position, it should be **0 ~ 30** mm **(0 ~ 1.2** in) lower than the top of the footpeg.

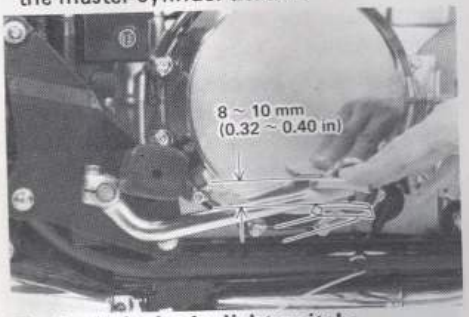


1. Rear Brake Pedal

To check the brake pedal play:

- The brake pedal should have **8 ~ 10** mm

(0.32 ~ 0.40 in) of free play from the rest position before the push rod contacts the master cylinder piston.

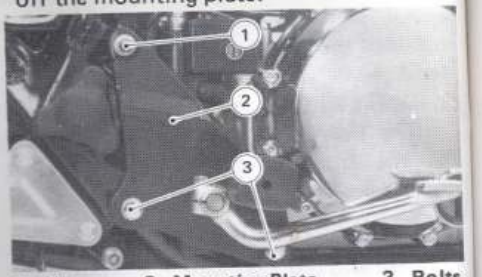


To check the brake light switch:

- Check the operation of the switch by turning on the ignition switch and depressing the brake pedal. The brake light should go on after about 15 mm of pedal travel.

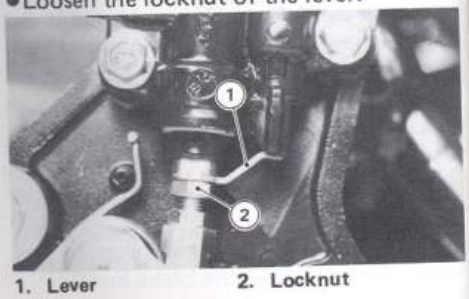
To adjust the brake pedal position, pedal play, and brake light switch:
Adjust as follows:

- Remove the two bolts and nut, and take off the mounting plate.



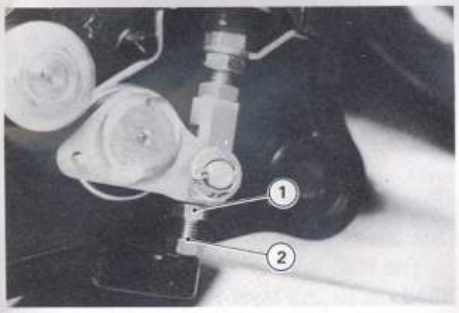
1. Nut **2. Mounting Plate** **3. Bolts**

- Loosen the locknut of the lever!



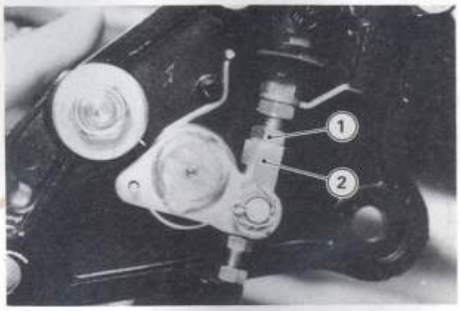
1. Lever **2. Locknut**

•To obtain the correct pedal position, loosen the locknut, and then turn the brake pedal adjusting bolt. Tighten the locknut.



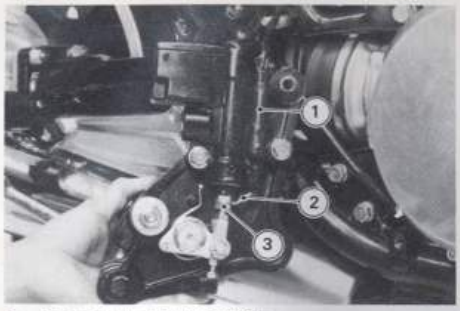
1. Locknut 2. Adjusting Bolt

Note: If pedal position is too high, loosen the locknut, and turn the master cylinder push rod to give the brake pedal plenty of play before turning the brake pedal adjusting bolt.



1. Locknut 2. Push Rod

•To adjust pedal free play, loosen the locknut, and turn the master cylinder push rod. Tighten the locknut.
•To obtain correct brake light timing, bend the lever to the proper angle. Tighten the locknut.



1. Rear Brake Light Switch
2. Lever 3. Locknut

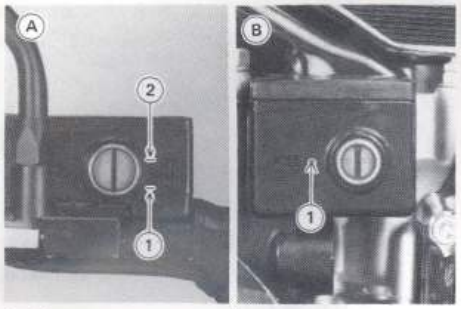
•Install the mounting plate with bolts and nut slightly loose.
•Check the brake pedal position, pedal play, and operation of brake light switch.
•Check for brake drag.
•Check braking effectiveness.
•Tighten the mounting bolts and nut of mounting plate securely.

Note: ○Be sure to adjust the pedal play and brake light switch after adjusting the pedal position, and to adjust the brake light switch after adjusting pedal play.
○Always make sure locknuts are secure after brake adjustment.
○Always check for the specified free play after adjusting brake pedal position or free play.

WARNING **Incorrect adjustment with insufficient free play can cause brake heating and drag. Skidding and loss of control may result.**

Disc Brake Fluid

The disc brake fluid reservoirs must be filled up to the level line with one of the recommended brake fluids. Fill both reservoirs over the lower level line (reservoir held horizontal). If none of the recommended brake fluids are available, use extra heavy-duty brake fluid only from a container marked D.O.T.4.



A. Front
1. Lower Level Line
B. Rear
2. Upper Level Line

The fluid should be changed periodically (Pg. 48). It should also be changed if it becomes contaminated with dirt or water.

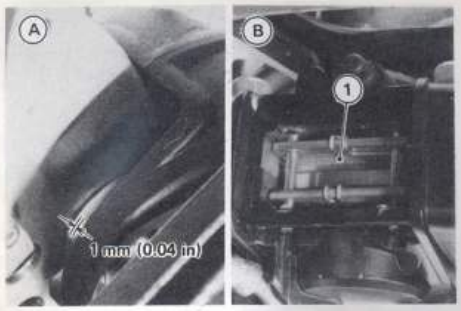
CAUTION
○Do not spill brake fluid onto any painted surface.
○Do not mix two brands of fluid.
○Do not use fluid from a container that has been left unsealed or that has been open for a long time.
○Check for fluid leakage around the fittings.
○Check for brake hose damage.

Recommended Disc Brake Fluid

Castrol Girling-Green
Castrol GT (LMA)
Castrol Disc Brake Fluid
Check Shock Premium Heavy Duty

Pad Replacement

Inspect the pads for wear. If the thickness of either pad is less than 1 mm (0.04 in) [front], or if either pad is worn down through the stepped portion [rear], replace front or rear brake pads as a set.



A. Front
1. Stepped Portion
B. Rear

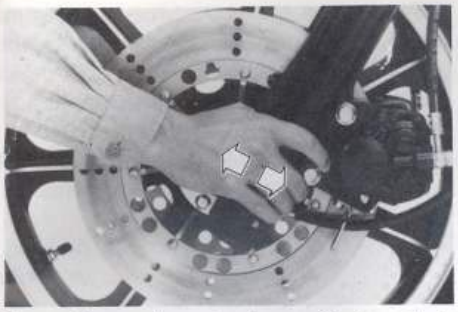
Note: Disc brake maintenance (except for adding fluid, brake pedal position, and brake pedal play) should be performed only by a Kawasaki Dealer.

WARNING
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. Since it is dangerous to operate the motorcycle under such conditions, have the brake checked immediately.

Steering Inspection

The steering should be checked periodically (Pg. 48).

To check the steering adjustment, first place a stand or block under the engine so that the front wheel is raised off the ground. Push the handlebar lightly to either side; if it continues moving under its own momentum, the steering is not too tight. Squatting in front of the motorcycle, grasp the lower ends of the front fork at the axle, and push and pull the front fork end back and forth; if play is felt, the steering is too loose.



Note: Since the steering adjustment is sensitive and crucial for safe operation, have it performed only by an authorized Kawasaki Dealer.

Front Fork Maintenance

The front fork legs of this model contain compressed air for optimum performance. This type of front fork is especially effective when the fork is almost fully compressed. It also has the advantage that the air pressure can be varied within the usable range to suit various riding conditions. Lower air pressure is for comfortable riding, but it should be increased for high speed riding, or riding on bad roads.

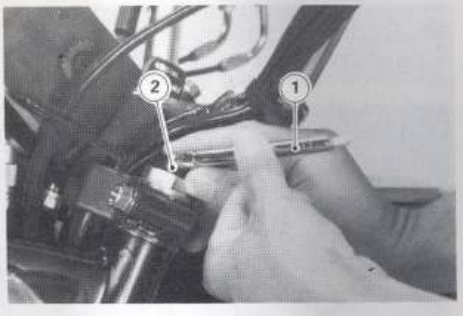
To check the front forks:

- Put the motorcycle up on its center stand.
- Raise the front wheel off the ground by using a jack at the specified location.



A. Place a jack at this location.

- Take off the air valve cap on the top of the left fork leg, and check the air pressure with an air pressure gauge. The standard air pressure is **0.6** kg/cm^2 (**60** kPa, **8.5** psi). The usable range of air pressure is **0.5** ~ **0.7** kg/cm^2 (**50** ~ **70** kPa, **7.1** ~ **10** psi).



1. Air Pressure Gauge **2. Air Valve**

Note: ○Check the air pressure when the front forks are cold (room temperature).

○Do not use tire gauges for checking air pressure. They may not indicate the correct air pressure because of air leaks that occur when the gauge is applied to valve.

- Inject air through the valve with a pump until the pressure gauge reads the specified value.

Note: A normal tire pump can be used.

CAUTION **Inject air little by little so that air pressure does not rise rapidly. Air pressure exceeding 2.5 kg/cm^2 (36 psi) may damage the oil seal.**

WARNING **○Be sure to adjust the air pressure within the usable range. Pressure too high or too low can produce a hazardous riding condition.**
○Only air or nitrogen gas can be used. Never inject oxygen or any kind of explosive gas.
○Do not incinerate the front fork.

Maintenance

Dirt or sand that has worked its way past a dust seal will eventually damage the oil seal, causing oil leakage. Periodically, slide up the dust seals and clean out any dirt or sand. Be careful not to damage either the oil seal or the inner tube surface.



1. Dust Seal

Since the front fork oil deteriorates with use, have the oil in both tubes changed periodically by your authorized Kawasaki Dealer (Pg. 49).

Rear Shock Absorbers

The rear shock absorbers can be adjusted by changing the air pressure and damping force to suit various riding and loading conditions.

Before making any adjustments, however, read the following procedures:

Air Pressure

The air pressure in the rear shock absorbers can be adjusted for different road and loading conditions.

The following table shows an example of air pressure adjustment. To obtain the stable handling or suitable riding condition, adjust the air pressure for different road and loading conditions if necessary. For instance, lower air pressure is for comfortable riding for an average-built rider of 68 kg (150 lbs) with no accessories. Ordinarily, the heavier the total load becomes, the higher the air pressure should be set.

Air Pressure Adjustment

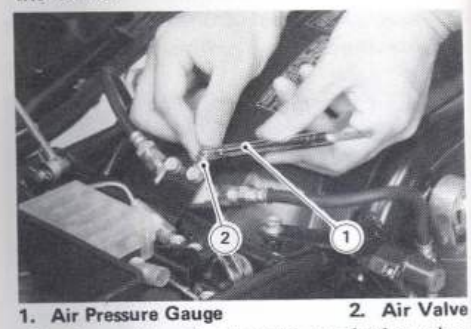
Air Pressure kg/cm² (kPa, psi)	Setting	Load	Road
1.0 (100, 14) ↕ 3.5 (350, 50)	Soft ↕ Hard	Light ↕ Heavy	Good ↕ Bad

To adjust the air pressure:

Note: Check and adjust the air pressure when the rear shock absorbers are cold (room temperature).

- Put the motorcycle up on its center stand to raise the rear wheel off the ground.
- Unlock the seat, and swing it open to take off the air valve cap under the seat.
- Check the air pressure with the air pressure gauge in the owner tools.

Note: Do not use tire gauges for checking air pressure. They may not indicate the correct air pressure because of air leaks that occur when the gauge is applied to the valve.



1. Air Pressure Gauge **2. Air Valve**

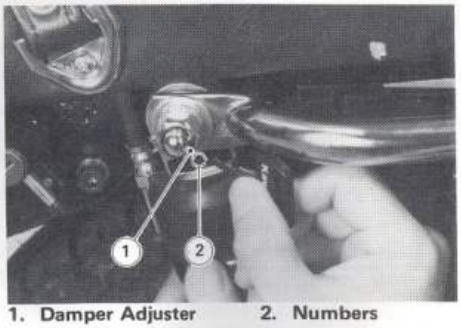
- To lower the air pressure, push the valve core in a twinkle. To raise the pressure, inject air through the valve with a tire pump. Change the air pressure within the range specified in the table above to suit various riding conditions.

CAUTION **Inject air little by little so that air pressure does not rise rapidly. Air pressure exceeding 5.0 kg/cm^2 (500 kPa, 71 psi) may damage the oil seal.**

WARNING **○Be sure to adjust the air pressure within the usable range. Pressure too high or too low can produce a hazardous riding condition.**
○Only air or nitrogen gas can be used. Never inject oxygen or any kind of explosive gas.
○Do not incinerate the rear shock absorbers.

Damping Force

The damper adjuster on each rear shock absorber has 4 positions so that the damping force can be adjusted for different road and loading conditions. The numbers on the adjuster show the setting position of the damper.



1. Damper Adjuster 2. Numbers

The following table shows an example of damping force adjustment. To obtain the stable handling or suitable riding condition, adjust the damping force for different road and loading conditions if necessary. The damping force can be left soft for average riding. But it should be adjusted harder for high speed riding, or riding with a passenger. If the damper setting feels too soft or too stiff, adjust it in accordance with the following table:

Damper Adjuster

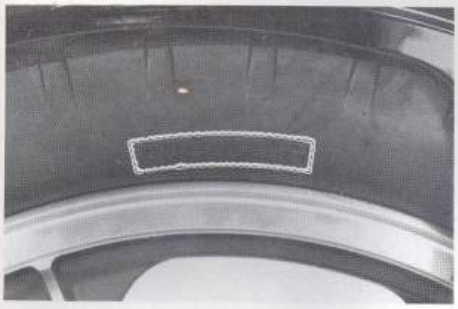
Adjuster Position	Damping Force	Setting	Load	Road	Speed
1	Stronger ↓	Soft ↕	Light ↕	Good ↕	Low ↕
2					
3					
4		Hard	Heavy	Bad	High

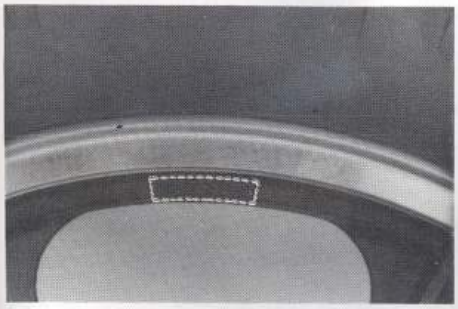
To adjust the damping force:
- Turn the adjusters to the desired position until you feel a click.
- Check to see that both adjuster are turned to the same relative position.

WARNING **If both damper adjuster are not adjusted equally, handling may be impaired and a hazardous condition may result.**

Wheel Inspection

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.





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

WARNING **The tires, rims, and air valves on this motorcycle is designed only for tubeless type wheels. The recommended standard tires, rims, and air valves must be used for replacement. For correct performance, do not install a tube in a tubeless tire.**

Tires:

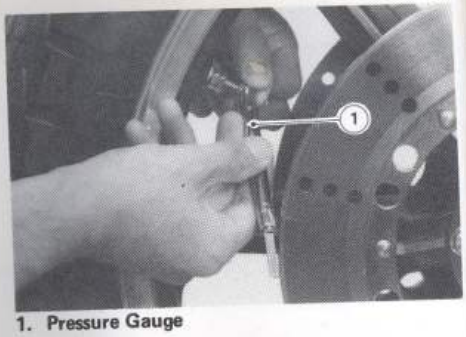
Payload and Tire Pressure

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 212.5 kg (468 lbs), including rider, passenger, baggage, and accessories.

●Check the tire pressure often, using an accurate gauge.

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.



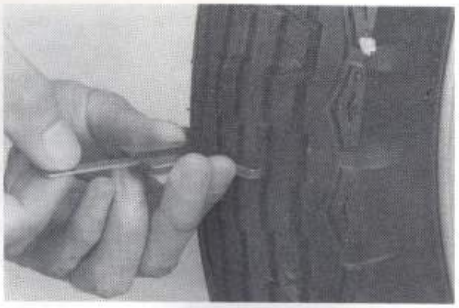
1. Pressure Gauge

	Air Pressure (Cold)		Tire Size	Make Type	Minimum Tread Depth	
Front	2.00 kg/cm² (200 kPa, 28 psi)		MN90-18	DUNLOP F8 TUBELESS	1 mm (0.04 in)	
Rear	Up to 97.5 kg (215 lbs) load	2.5 kg/cm² (250 kPa, 36 psi)	MT90-17	DUNLOP K100M TUBELESS	Under 130 kph (80 mph)	2 mm (0.08 in)
	97.5～212.5 kg (215～468 lbs) load	2.80 kg/cm² (280 kPa, 40 psi)			Over 130 kph (80 mph)	3 mm (0.12 in)
	Over 210 kph (130 mph)					

Tire Wear, Damage

As the tire tread wears down, the tire becomes more susceptible the 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.



- 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.

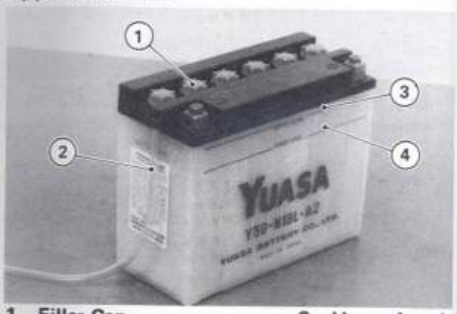
WARNING

○To ensure safe handling and stability, use only the recommended standard tires for replacement, inflated to the standard pressure.
○Tires that has been punctured and repaired do not have the same capabilities as undamaged tires. Do not exceed 100 kph (62.5 mph) within 24 hours after repair, and 180 kph (112.5 mph) at any time after that.

Battery Maintenance

Battery Electrolyte Level Inspection

Keep the electrolyte level between the upper and lower level lines. When it gets low, remove the battery filler caps and fill with distilled water until the electrolyte level in each cell reaches the upper level line.



1. Filler Cap
2. Battery Vent Hose
3. Upper Level
4. Lower Level

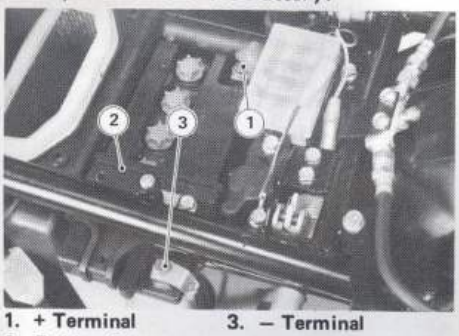
CAUTION

Add only distilled water to the battery. Ordinary tap

water is not a substitute for distilled water and will shorten the life of the battery.

Battery Charging

- Unlock the seat, swing the seat open, and remove the tool tray.
- Remove the rubber stay screws, and pull out the rubber stay.
- Disconnect the negative (–) ground lead first, and then the positive (+) lead, and remove the battery.



1. + Terminal
2. Rubber Stay
3. – Terminal

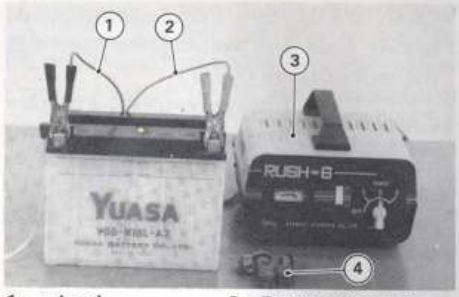
- Clean the battery using a solution of baking soda and water. Be sure that the terminals are clean.

CAUTION **Always remove the battery from the motorcycle for charging. If the battery is charged while still installed, battery electrolyte may spill and corrode the frame or other parts of the motorcycle.**

- Check that the electrolyte level in each cell is between the upper and lower level lines, and add distilled water if necessary.

CAUTION **Do not use ordinary tap water to fill the battery. Tap water contains impurities which will shorten battery life.**

- Remove the caps from all the cells and connect the battery charger leads the battery terminals (red to +, black to –).



1. – Lead
2. + Lead
3. Battery Charger
4. Filler Caps

WARNING **Because the battery gives off an explosive gas mixture of hydrogen and oxygen, keep any sparks or open flame away from the battery during charging. When using a battery charger, connect the battery to the charger before turning on the charger. This procedure prevents sparks at the battery terminals which could ignite any battery gases.**

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

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

- After charging, check the electrolyte level in each cell. If the level has fallen,

add distilled water to bring it back up between the level lines.

- Check that the battery case damper is properly in place.
- Put the battery in the battery case, and route the battery vent hose as shown on the caution label.
- Connect the capped lead to the positive (+) terminal, and then connect the black lead to the negative (—) terminal.
- Put a light coat of grease on the terminals to prevent corrosion.



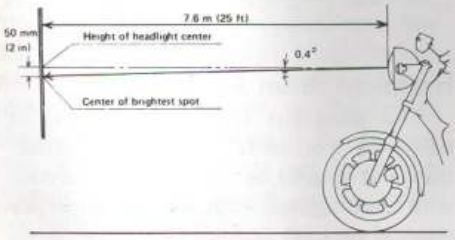
- Cover the positive (+) terminal with its protective cap.

CAUTION **Make sure the battery vent hose is kept away from the exhaust system. Do not let the vent hose become folded, pinched, or melted by the exhaust system. An unvented battery will not keep a charge and it may crack from built-up gas pressure.**

Headlight Beam Adjustment

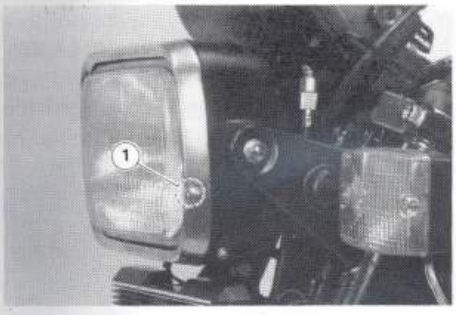
The headlight beam is adjustable in both the horizontal and vertical directions. It should be aimed straight ahead, with the brightest spot slightly below horizontal on high beam. The proper angle

is 0.4 degrees below horizontal. This is a 50 mm (2 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. If not properly adjusted horizontally, the beam will point to one side rather than straight ahead. 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 dazzle oncoming drivers.



Horizontal Adjustment

- Turn the adjusting screw on the headlight rim in or out until the beam points straight ahead. Turning the adjusting screw clockwise makes the headlight beam point to the right.



1. Adjusting Screw

Vertical Adjustment

- Loosen the headlight housing stay bolt underneath the headlight.



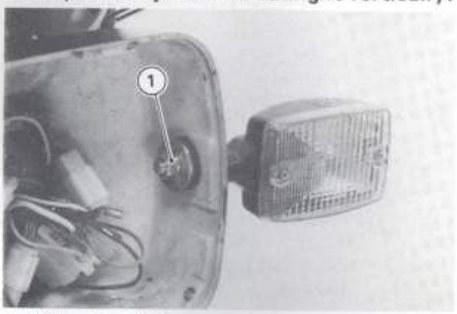
1. Stay Bolt

●Remove the two screws from the lower side of the headlight housing, and drop out the headlight unit.



1. Mounting Screw

●Loosen the headlight housing mounting nuts, and adjust the headlight vertically.



1. Mounting Nut

●Tighten the headlight housing mounting nuts, and remount the headlight unit.
●Tighten the headlight housing stay bolt.

Bulb Replacement

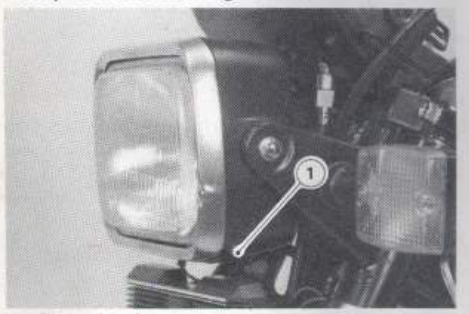
When replacing bulbs, be sure that the replacement is the proper bulb.

The proper bulbs are as follows:

Headlight Bulb: 12V 60/55W
Turn Signal/Running
Position Light Bulb: 12V 23/8W
Turn Signal Light Bulb: 12V 23W
Tail/Brake Light Bulb: 12V 8/27W

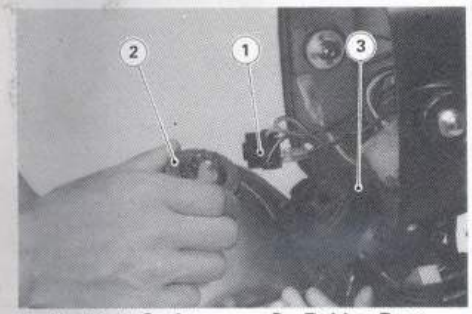
Headlight Bulb Replacement

●Remove the two mounting screws and drop out the headlight unit.



1. Mounting Screw

●Take out the headlight bulb socket.
●Remove the rubber boot.
●Push the bulb stop and turn it counterclockwise so that the bulb stop can be removed, and then remove the bulb.



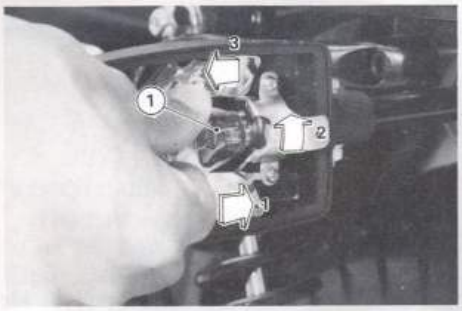
1. Headlight Socket
2. Bulb Stop
3. Rubber Boot

CAUTION **When handling the quartz-halogen bulb, never touch the glass portion with bare hands. Always use a clean cloth. Oil contamination from hands or dirty rags can reduce bulb life or cause the bulb to explode.**

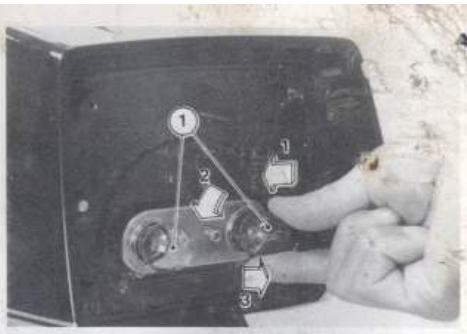
Note: The top of the semi-sealed beam unit and rubber boot is marked "TOP".

Turn Signal Light and Tail/Brake Light Bulbs Replacement

Remove the lens, press the bulb inwards, twist it to the left, and pull it out.



1. Turn Signal Light Bulb



1. Tail/Brake Light Bulbs

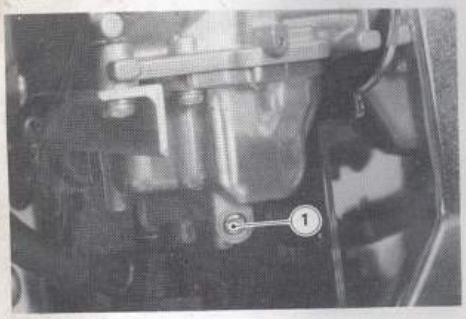
Note: When installing a lens, tighten the screws uniformly, but not too tightly, in order to avoid damaging the lens.

Fuel System Cleaning

Accumulation of moisture in the fuel tank will restrict the flow of fuel and

cause the carburetors to malfunction. The fuel system should be cleaned out periodically (Pg. 49) in the following manner:

- Turn the fuel tap to the OFF position.
- Place a suitable container under the carburetors.
- Remove the drain plug from the bottom of each carburetor float bowl to drain the bowls.



1. Drain Plug

- If any water or dirt appeared during the above operation, have the fuel system checked by a competent mechanic following the procedure in the Service Manual.

WARNING

○Clean the fuel system in a well-ventilated area, and take ample care that there are no sparks or flame anywhere near the working area.
○Never clean out the fuel system when the engine is still warm.
○Wipe any fuel off the engine before starting it.

Lubrication

Lubricate exposed parts which are subject to rust, with either motor oil

or regular grease whenever the vehicle has been operated under wet or rainy conditions, and especially after using a high-pressure spray washer. Before lubricating each part, clean off any rusty spots with rust remover and wipe off any grease, oil, dirt, or grime.

In accordance with the Periodic Maintenance Chart (Pg. 49), in addition to the points shown here, other parts should be inspected and lubricated by a Kawasaki Dealer.



Note: After connecting the upper end of the clutch cable, adjust the clutch (Pg. 72).

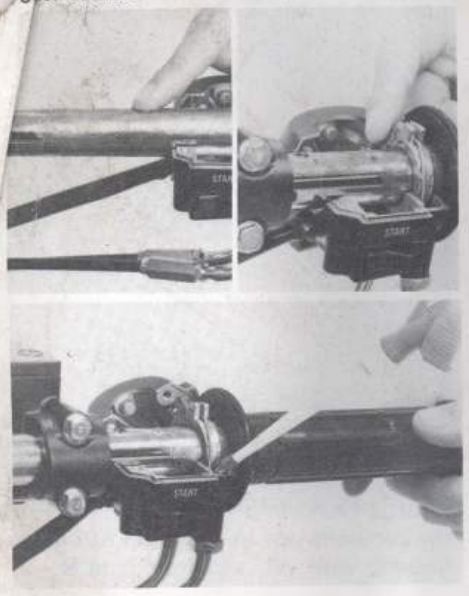
CLUTCH CABLE

The best way to lubricate the cable is to let oil seep in between the inner and outer cable by forming some sort of reservoir to hold the oil. Lubricate the cable as shown.

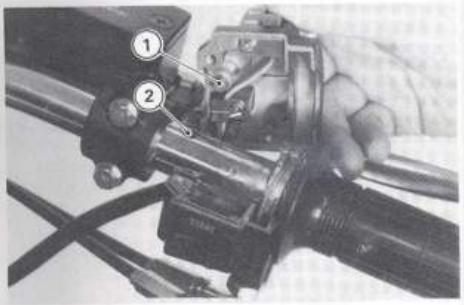
THROTTLE GRIP AND CABLES

Apply a light coat of grease to the exposed portion of the throttle inner cables and the catch in the throttle grip. Fit the throttle cables into the throttle grip. Fill the compartment in the lower half of the housing with oil, and wait until the oil

caus seeped in between the inner and fu er cables.



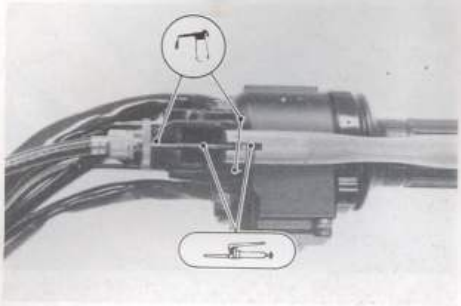
Note: ○Making sure that the pin in the upper half of the housing fits into the hole in the handlebar, reassemble the engine stop switch housing. Tighten the screws securely.

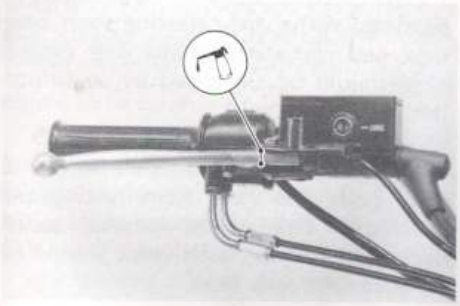


1. Pin 2. Hole

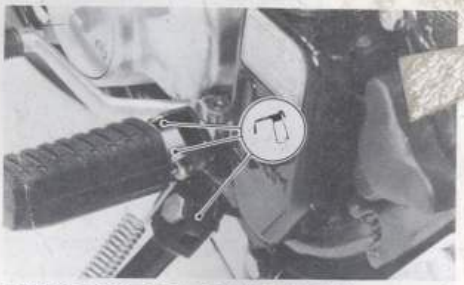
○After throttle grip assembly, check that the throttle grip turns properly and that the inner cables slide smoothly.

BRAKE AND CLUTCH LEVERS

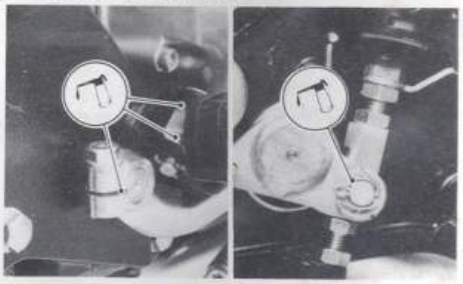




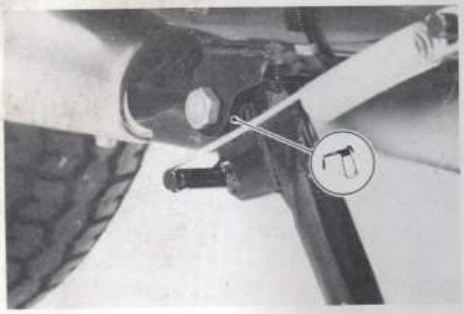
LEFT FOOTPEG, SIDE STAND

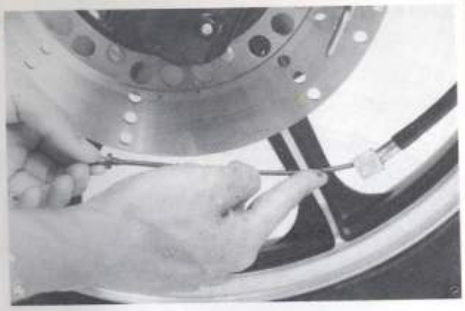


RIGHT FOOTPEG, BRAKE PEDAL, BRAKE PUSH ROD



CENTER STAND





The propeller shaft sliding joints, wheel bearings, swing arm, steering stem bearings, and carburetor choke link mechanism should be lubricated by an authorized Kawasaki Dealer.

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.

SPEEDOMETER AND TACHOMETER CABLES

Apply grease sparingly to the inner cables.

Cleaning

Preparation for washing

Before washing, precautions must be taken to keep water off the following places:

- Rear openings of each muffler; Cover with a plastic bag secured with a rubber band.
- Clutch and brake levers, switch housings on the handlebar; Cover with plastic bags.
- Ignition switch; Cover the keyhole with tape.
- Air cleaner intake; Close up the intake with tape, or stuff with rags.

Where to be careful

Avoid spraying water with any great force near the following places:

- Speedometer and tachometer
- Disc brake master cylinders and calipers
- Under the fuel tank; If water gets into the ignition coils or into the spark plug caps, the spark will jump through th water and be grounded out. When th happens, the motorcycle will not start and the affected parts must be wiped dry.

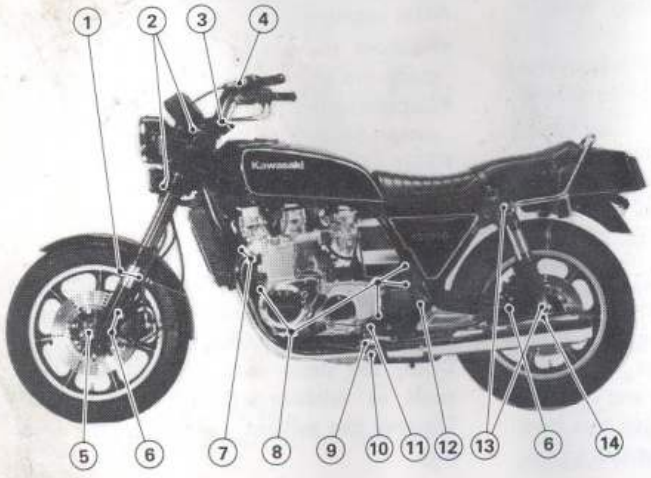
After washing

- Remove the plastic bags and tape, and clean the air cleaner intake.
- Lubricate the points listed in the Lubrication Section.
- Test the brakes before motorcycle operation.
- Start the engine and run it for 5 minutes.

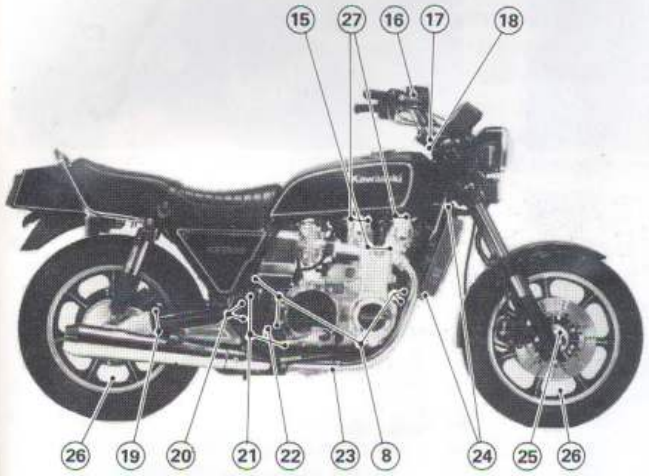
WARNING **Never wax or lubricate the brake discs. Loss of braking and an accident could result. Clean the discs with an oil-less solvent such as trichloroethylene or acetone. Observe the solvent manufacturer's warnings.**

Bolt and Nut Tightening

In accordance with the Periodic Maintenance Chart (Pg. 48), 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 refer to the Service Manual for torque values.



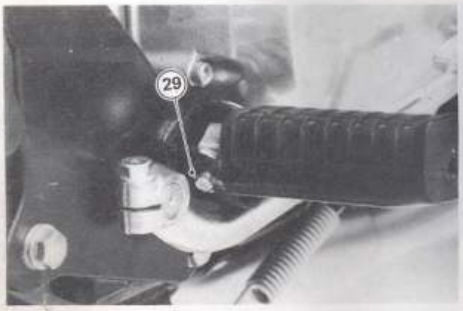
1. Front Fender mounting Bolts
2. Front Fork Clamp Bolts
3. Handlebar Clamp Bolts
4. Clutch Lever Holder Bolt
5. Front Axle Nut
6. Caliper Mounting Bolts
7. Exhaust Pipe Mounting Nuts
8. Engine Mounting Nuts and Bolts
9. Side Stand Bolt
10. Center Stand Bolt
11. Shift Pedal Bolt
12. Pivot Shaft Locknut
13. Rear Shock Absorber Nuts
14. Rear Axle Nut



15. Cylinder Head Nuts
16. Front Brake Lever Holder Bolt
17. Steering Stem Head Bolt
18. Steering Stem Clamp Bolt
19. Final Bevel Gear Case Mounting Nuts
20. Pivot Shaft Stop Bolts
21. Brake Pedal Mounting Plate Nut and Bolts
22. Brake Pedal Bolt
23. Exhaust Pipe and Muffler Clamp Bolts
24. Radiator Mounting Bolts
25. Front Axle Clamp Bolts
26. Air Valve Nuts
27. Cylinder Head Cover Bolts







28. Clips (Seat)
29. Cotter Pin (Footpeg)
30. Cotter Pin (Brake Push Rod)

STORAGE

When the motorcycle is to be stored for any length of time, such as during the winter season, it should be prepared for storage as follows:

- Clean the entire vehicle thoroughly.
- Empty the gasoline from the fuel tank, and empty the carburetors by unscrewing the drain screw at the bottom of each carburetor. (If left in for a long time, the gasoline will break down and could clog the carburetors.)
- Remove the empty fuel tank, pour about 250 cc (½ 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 put several drops of SE class SAE 30 oil into each cylinder. Push the starter switch a few seconds to coat the cylinder walls with oil, and install the spark plugs.
- 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 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 during cold

weather so that the electrolyte does not freeze and crack open the battery. The more discharged the battery becomes, the more easily it freezes.

- Tie a plastic bag over the exhaust pipes to prevent moisture from entering.
- Put a cover over the motorcycle to keep dust and dirt from collecting on it.

To put the motorcycle back into use after storage:

- Check the electrolyte level in the battery, charge the battery if necessary, and install it in the motorcycle. Be careful that the battery vent hose is not pinched.
- Make sure the spark plugs are tight.
- Fill the fuel tank with fuel.
- Run the engine for about five minutes to warm the oil, and drain the engine oil.
- Put in fresh engine oil (Pg. 50).
- Check all the points listed under the Daily Safety Checks (Pg. 44).
- Lubricate the points listed in the Lubrication Section (Pg. 102).

Engine doesn't start
- ●Clutch lever not pulled
- ●No fuel in tank
- ●Throttle opened with choke on (cold)
- ●Fuel not reaching carburetors
  - ○Fuel tap lever position incorrect
  - ○Fuel tap obstructed or damaged
- ●Flooded
- ●Starter motor not rotating
  - ○Battery voltage low
  - ○Relay not contacting or operating
  - ○Starter defective
- ●Starter clutch not operating
- ●Compression leakage
  - ○Cylinder wear
  - ○Piston ring trouble
  - ○Valve trouble
  - ○Spark plugs loose
  - ○Cylinder head not sufficiently tightened down
- ●No spark to plug
  - ○Plugs dirty or damaged
  - ○High tension wire damaged

Engine stops
- ●No fuel
- ●Fuel tap clogged
- ●Lever position wrong
- ●Fuel tank cap air vents obstructed
- ●Carburetor damaged or malfunction

- ●Overheating
  - ○Engine oil low
  - ○Incorrect spark plugs
  - ○Carbon built up in combustion chamber
  - ○Clutch slipping
  - ○Coolant level low
  - ○Thermostat malfunction
  - ○Clogged coolant passages
- ●Mixture too rich or too lean
  - ○Carburetors defective
  - ○Carburetor link mechanism loose
  - ○Air cleaner clogged or damaged
  - ○Intake manifold loose or damaged

No power
- ●Compression leakage
  - ○Cylinder wear
  - ○Piston ring trouble
  - ○Valve trouble
  - ○Spark plugs loose
  - ○Cylinder head not sufficiently tightened down
- ●Clutch slipping
  - ○Clutch maladjusted or assembled wrong
  - ○Clutch parts worn
- ●Engine oil incorrect
- ●Carburetor or fuel pipe clogged
- ●Mixture too rich or too lean (see above)
- ●Incorrect firing
  - ○Spark plug damaged
  - ○Ignition coil damaged

MAINTENANCE RECORD

Vehicle Identification No. _____

Owner Name _____

Warranty Start Date _____

Engine Displacement _____

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

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address
6-17		new oil filter 1300		
6-5		oil filter 8800		
5/26/94		oil + filter 12318	new oil in front fork	
7/30/95		oil and filter 15696		
7/1/96		oil 16330		
4/11/97		oil 21700		
8/3/98		oil filter 23450	Dale Ferguson	
4/5	23960	oil and filter 8/	new oil front fork	

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

Date	Odometer Reading	Maintenance Performed	Dealer Name	Dealer Address

EMISSION CONTROL INFORMATION

To protect the environment in which we all live, Kawasaki has incorporated two emission control systems 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 and ignition systems of this motorcycle have been carefully designed and constructed to ensure an efficient engine with low exhaust pollutant levels.

got [illegible] 5-29-81

Dale Ferguson 3-27-81 NEW

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 shading are necessary to ensure compliance with the applicable standards.

Example: Spark Plug Maintenance

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 Systems 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.



KZ1300-A3 Wiring Diagram

