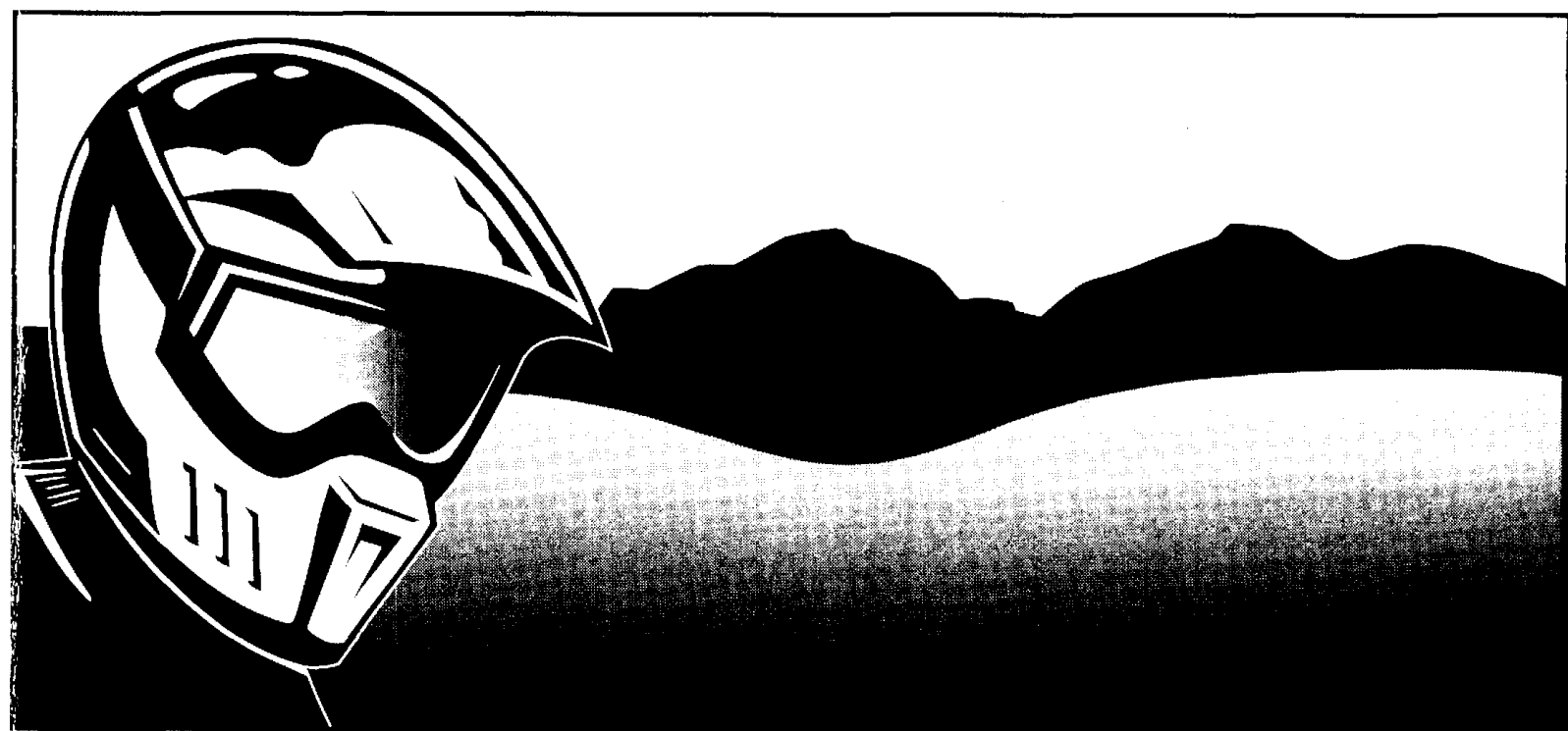




OWNER'S MANUAL



XR650R

Honda XR650R

OWNER'S MANUAL

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IMPORTANT INFORMATION

- **OPERATOR ONLY. NO PASSENGER**

This motorcycle is designed and constructed as an operator-only model. The seating configuration does not safely permit the carrying of a passenger. Do not exceed the maximum weight capacity.

- **ON/OFF-ROAD USE**

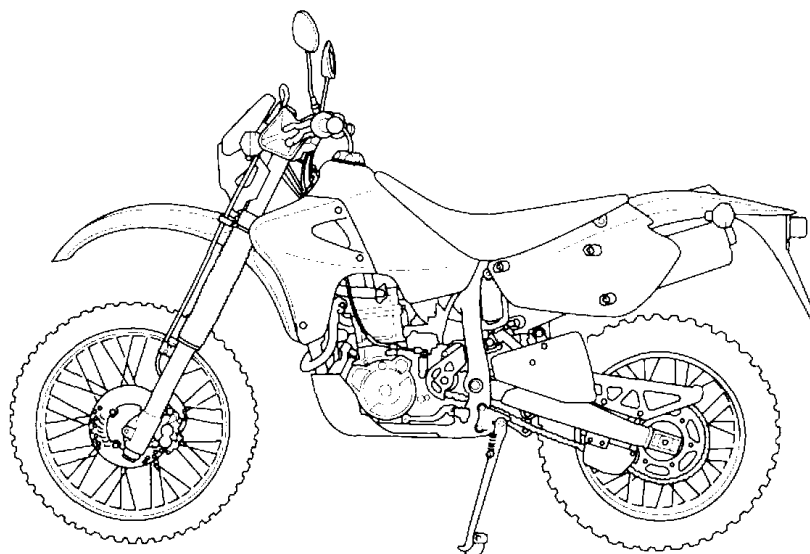
This motorcycle is designed for “dual purpose” use.

- **READ THIS OWNER’S MANUAL CAREFULLY**

Pay special attention to the safety messages that appear throughout the manual. These messages are fully explained in the “A Few Words About Safety” section which appears before the Contents page.

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

Honda XR650R OWNER'S MANUAL



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WELCOME

The motorcycle presents you a challenge to master the machine, a challenge to adventure. You ride through the wind, linked to the road by a vehicle that responds to your commands as no other does. Unlike an automobile, there is no metal cage around you. Like an airplane, a pre-ride inspection and regular maintenance are essential to your safety. Your reward is freedom.

To meet the challenges safely, and to enjoy the adventure fully, you should become thoroughly familiar with this owner's manual **BEFORE YOU RIDE THE MOTORCYCLE**.

As you read this manual, you will find information that is preceded by a **NOTICE** symbol. This information is intended to help you avoid damage to your motorcycle, other property, or the environment.

When service is required, remember that your Honda dealer knows your motorcycle best. If you have the required mechanical "know-how" and tools, your dealer can supply you with an official Honda Service Manual to help you perform many maintenance and repair tasks.

Pleasant riding, and thank you for choosing a Honda !

- The following codes in this manual indicate each country.

U	Australia
---	-----------

- The specifications may vary with each locale.


A FEW WORDS ABOUT SAFETY

Your safety, and the safety of others, is very important. And operating this motorcycle safely is an important responsibility.

To help you make informed decisions about safety, we have provided operating procedures and other information on labels and in this manual. This information alerts you to potential hazards that could hurt you or others.

Of course, it is not practical or possible to warn you about all hazards associated with operating or maintaining a motorcycle. You must use your own good judgment.

You will find important safety information in a variety of forms, including:

- **Safety Labels** — on the motorcycle.
- **Safety Messages** — preceded by a safety alert symbol  and one of three signal words: **DANGER, WARNING, or CAUTION.**

These signal words mean:

DANGER

You **WILL** be **KILLED** or **SERIOUSLY HURT** if you don't follow instructions.

WARNING

You **CAN** be **KILLED** or **SERIOUSLY HURT** if you don't follow instructions.

CAUTION

You **CAN** be **HURT** if you don't follow instructions.

- **Safety Headings** — such as Important Safety Reminders or Important Safety Precautions.
- **Safety Section** — such as Motorcycle Safety.
- **Instructions** — how to use this motorcycle correctly and safely.

This entire manual is filled with important safety information — please read it carefully.

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MOTORCYCLE SAFETY

IMPORTANT SAFETY INFORMATION

Your motorcycle can provide many years of service and pleasure – if you take responsibility for your own safety and understand the challenges that you can meet on and off-road.

There is much that you can do to protect yourself when you ride. You'll find many helpful recommendations throughout this manual. Following are a few that we consider most important.

Always Wear a Helmet

It's a proven fact: helmets significantly reduce the number and severity of head injuries. So always wear an approved motorcycle helmet and make sure your passenger does the same. We also recommend that you wear eye protection, sturdy boots, gloves, and other protective gear (page 3).

Never Carry a Passenger

Your motorcycle is designed for one person only. There are no handholds, footrests, or seat for a second person – so never carry a passenger. A passenger could interfere with your ability to move around to maintain your balance and control of the motorcycle.

Don't Drink and Ride

Alcohol and riding don't mix. Even one drink can reduce your ability to respond to changing conditions, and your reaction time gets worse with every additional drink. So don't drink and ride, and don't let your friends drink and ride either.

Make Yourself Easy to See On-Road

Some drivers do not see motorcycles because they are not looking for them. To make yourself more visible, wear bright reflective clothing, position yourself so other drivers can see you, signal before turning or changing lanes, and use your horn when it will help others notice you.

Be Alert for Off-Road Hazards

The terrain can present a variety of challenges when you ride off-road. Continually “read” the terrain for unexpected turns, drop-offs, rocks, ruts, and other hazards. Always keep your speed low enough to allow time to see and react to hazards.

Ride Within Your Limits

Pushing the limits is another major cause of motorcycle accident both on-road and off. Never ride beyond your personal abilities or faster than conditions warrant. Remember that alcohol, drugs, fatigue and inattention can significantly reduce your ability to make good judgements and ride safely.

Keep Your Bike in Safe Condition

For safe riding, it's important to keep your motorcycle properly maintained. Having a breakdown can be difficult, especially if you are stranded off-road far from your base. To help avoid problems, inspect your motorcycle before every ride and perform all recommended maintenance. Never exceed load limits, and use only accessories that have been approved by Honda for this motorcycle. See page 5 for more details.

PROTECTIVE APPAREL

For your safety, we strongly recommend that you always wear an approved motorcycle helmet, eye protection, boots, gloves, long pants, and a long-sleeved shirt or jacket whenever you ride. Although complete protection is not possible, wearing proper gear can reduce the chance of injury when you ride.

Following are suggestions to help you choose proper gear.

WARNING

Not wearing a helmet increases the chance of serious injury or death in a crash.

Be sure you always wear a helmet, eye protection and other protective apparel when you ride.

Helmets and Eye Protection

Your helmet is your most important piece of riding gear because it offers the best protection against head injuries. A helmet should fit your head comfortably and securely. A bright-coloured helmet can make you more noticeable in traffic, as can reflective strips.

An open-face helmet offers some protection, but a full-face helmet offers more. Always wear a face shield or goggles to protect your eyes and help your vision.

Additional On-Road Gear

In addition to a helmet and eye protection, we also recommend:

- Sturdy boots with non-slip soles to help protect your feet and ankles.
- Leather gloves to keep your hands warm and help prevent blisters, cuts, burns and bruises.
- A motorcycle riding suit or jacket for comfort as well as protection. Bright-coloured and reflective clothing can help make you more noticeable in traffic. Be sure to avoid loose clothes that could get caught on any part of your motorcycle.

Additional Off-Road Gear

On-road apparel may also be suitable for casual off-road riding. But if you plan on any serious off-road riding you will need more serious off-road gear. In addition to your helmet and eye protection, we recommend off-road motorcycle boots and gloves, riding pants with knee and hip pads, a jersey with elbow pads, and a chest/shoulder protector.

LOAD LIMITS AND GUIDELINES

Your Honda was designed as a rider-only motorcycle. It was not designed to carry a passenger or cargo. A passenger or cargo could interfere with your ability to move around to maintain your balance and control of the motorcycle.

In addition, exceeding the weight limits or carrying an unbalanced load can seriously affect your motorcycle's handling, braking, and stability. Adding accessories or making modifications that change this motorcycle's design and performance can also make it unsafe. Also, the weight of any accessories will reduce the maximum load the motorcycle can carry.

The following pages give more specific information on loading, accessories and modifications.

Loading

How much weight you put on your motorcycle, and how you load it, are important to your safety. If you decide to carry cargo, you should be aware of the following information.

WARNING

Overloading or carrying a passenger can cause a crash and you can be seriously hurt or killed.

Follow all load limits and other loading guidelines in this manual.

Load Limits

Following are the load limits for your motorcycle:

Maximum weight capacity:

100 kg (220 lbs)

Includes the weight of the rider and any accessories

Loading Guidelines

As discussed on page 5 , we recommend that you do not carry any cargo on this motorcycle. However, if you decide to carry cargo, ride at reduced speeds and follow these common-sense guidelines:

- Keep cargo small and light. Make sure it cannot easily be caught on brush or other objects, and that it does not interfere with your ability to shift position to maintain balance and stability.

- Place weight as close to the center of the motorcycle as possible.
- Do not attach large or heavy items (such as a sleeping bag or tent) to the handlebar, fork, or front fender.
- Make sure that all cargo is tied down securely.
- Never exceed the maximum weight limit.
- Check that both tyres are inflated properly.

Accessories and Modifications

Modifying your motorcycle or using non-Honda accessories can make your motorcycle unsafe. Before you consider making any modifications or adding an accessory, be sure to read the following information.

WARNING

Improper accessories or modifications can cause a crash in which you can be seriously hurt or killed.

Follow all instructions in this owner's manual regarding accessories and modifications.

Accessories

We strongly recommend that you use only genuine Honda accessories that have been specifically designed and tested for your motorcycle. Because Honda cannot test all other accessories, you must be personally responsible for proper selection, installation and use of non-Honda accessories. Check with your dealer for assistance and always follow these guidelines:

- Make sure the accessory does not obscure any lights, reduce ground clearance and banking angle, limit suspension travel or steering travel, alter your riding position or interfere with operating any controls.
- Be sure electrical equipment does not exceed the motorcycle's electrical system capacity (page 119).

Modifications

We strongly advise you not to remove any original equipment or modify your motorcycle in any way that would change its design or operation. Such changes could seriously impair your motorcycle's handling, stability and braking, making it unsafe to ride.

Removing or modifying your exhaust system (such as the spark arresters or mufflers) or other equipment can also make your motorcycle illegal.

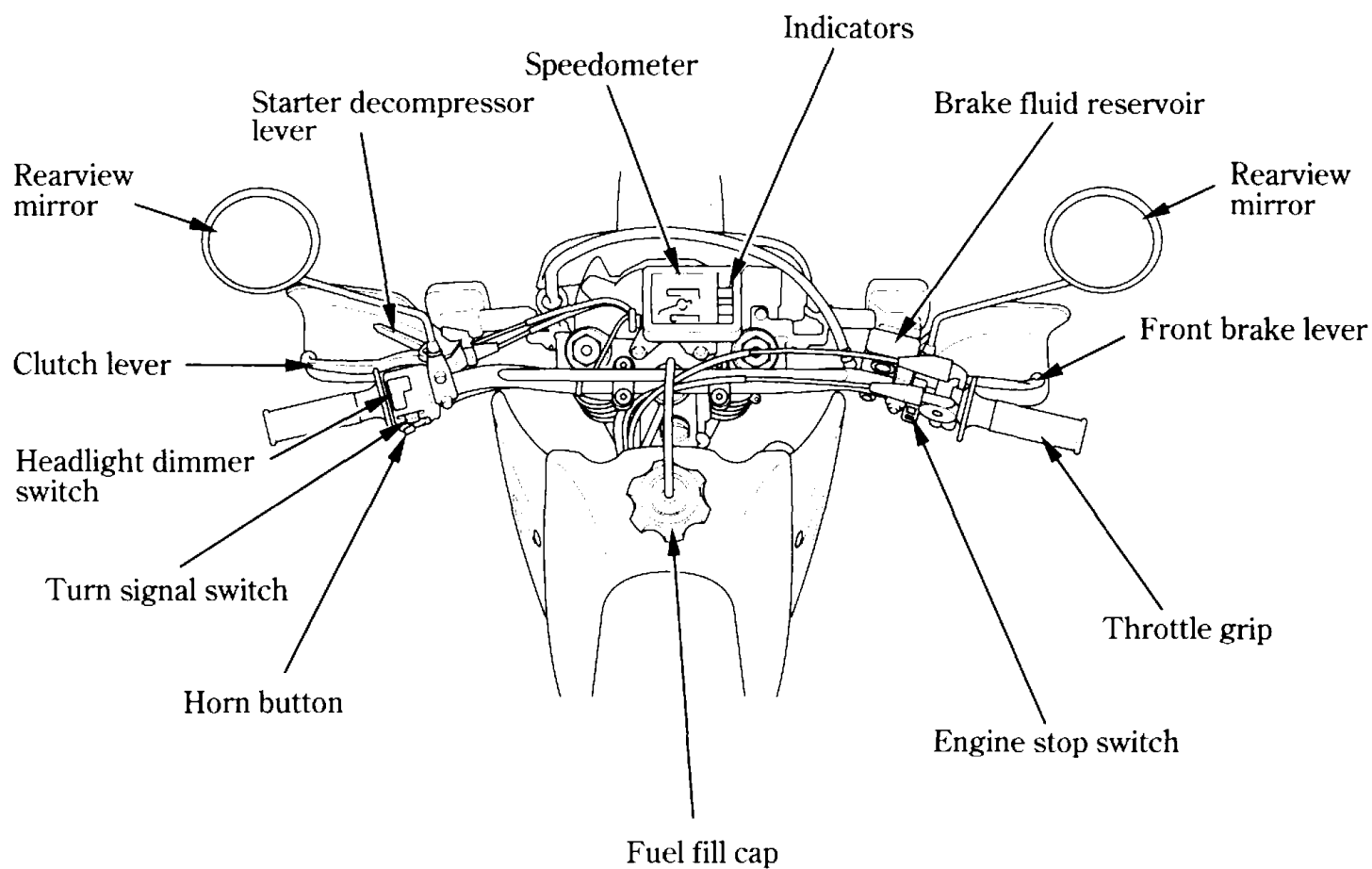
OFF-ROAD SAFETY

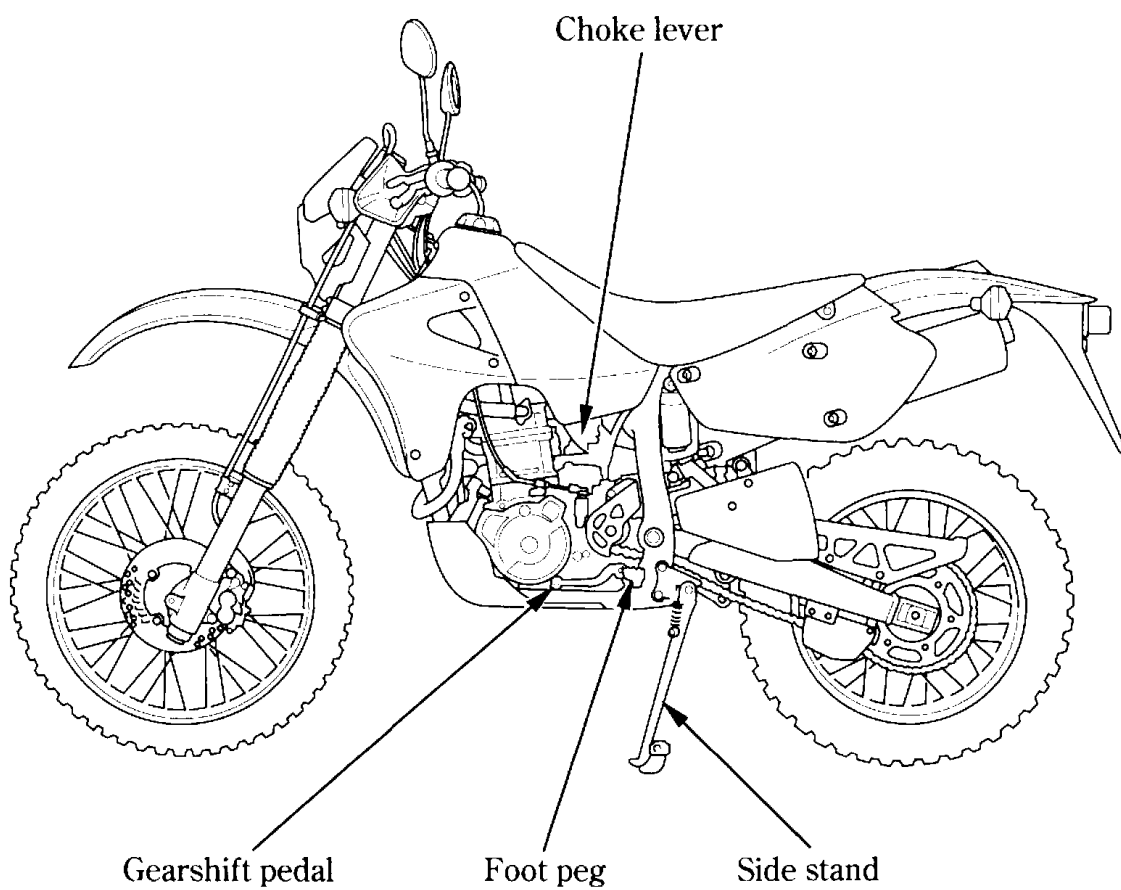
Learn to ride in an uncongested off-road area free of obstacles before venturing onto unfamiliar terrain.

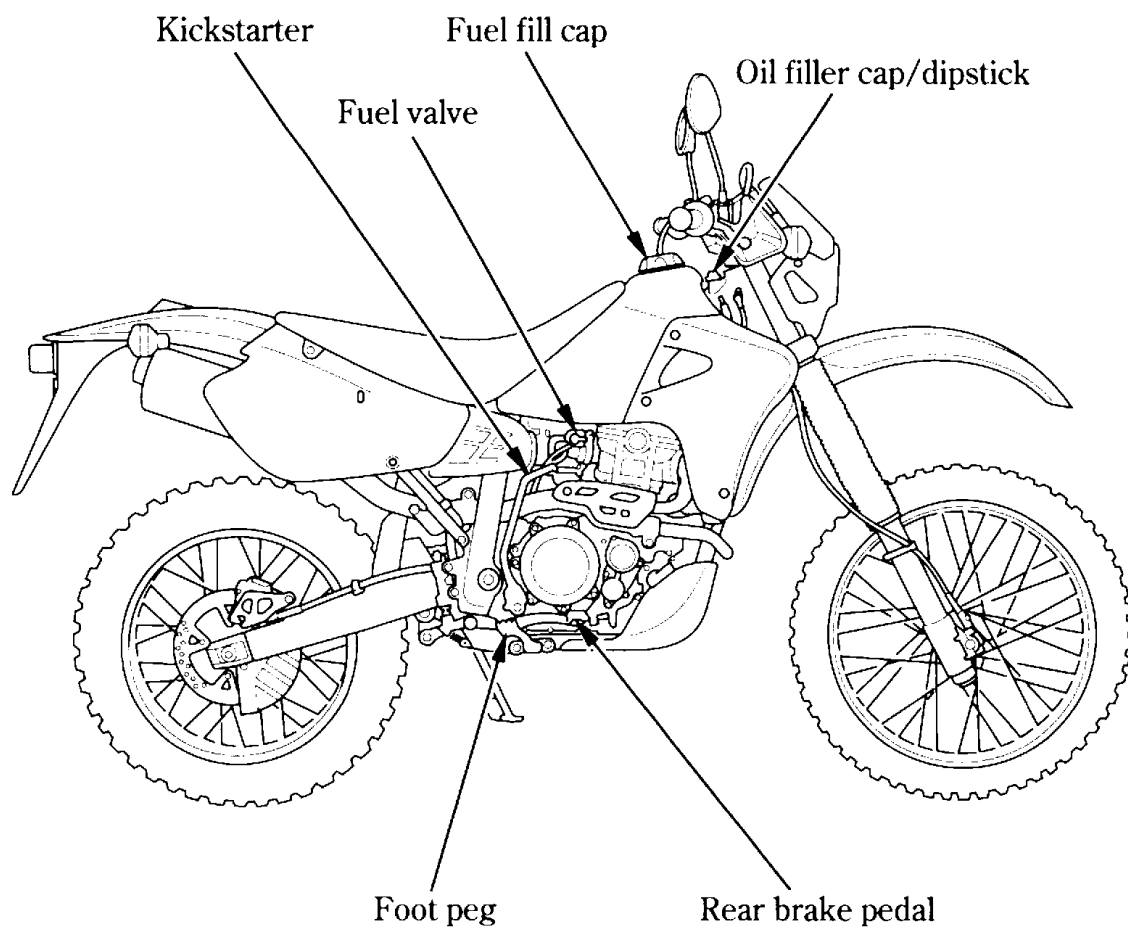
- Always obey local off-road riding laws and regulations.
- Obtain permission to ride on private property. Avoid posted areas and obey "NO Trespassing" signs.
- Ride with a friend on another motorcycle so that you can assist each other in case of trouble.
- Familiarity with your motorcycle is critically important should a problem occur far from help.
- Never ride beyond your ability and experience or faster than conditions warrant.
- If you are not familiar with the terrain, ride cautiously. Hidden rocks, holes, or ravines could spell disaster.

- Spark arresters and mufflers are required in most off-road areas. Don't modify your exhaust system. Remember that excessive noise bothers everyone and creates a bad image for motorcycling.

PARTS LOCATION



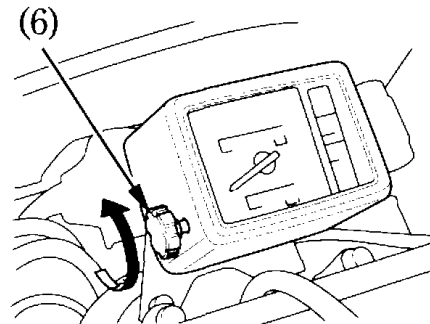
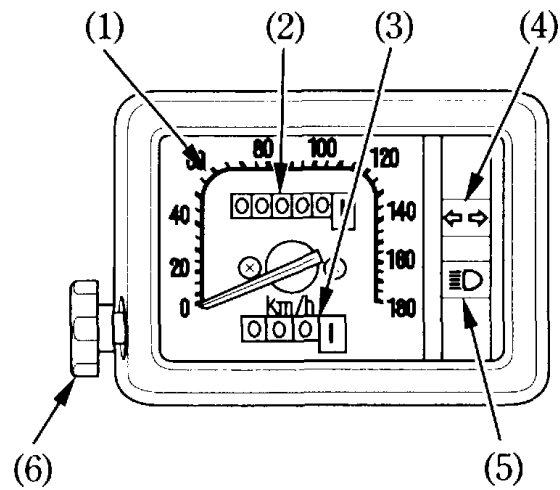




INSTRUMENTS AND INDICATORS

The indicators are in the speedometer, above the headlight. Their functions are described in the table on the following page.

- (1) Speedometer
- (2) Odometer
- (3) Tripmeter
- (4) Turn signal indicator
- (5) High beam indicator
- (6) Tripmeter reset knob



(Ref.No.) Description	Function
(1) Speedometer	Shows riding speed.
(2) Odometer	Shows accumulated mileage.
(3) Tripmeter	Shows mileage per trip or section of route.
(4) Turn signal indicator	Flashes when either turn signal operates.
(5) High beam indicator	Lights when the headlight is on high beam.
(6) Tripmeter reset knob	Resets tripmeter to zero (0). Turn knob in direction shown.

MAJOR COMPONENTS

(Information you need to operate this motorcycle)

SUSPENSION

Front Suspension

The front suspension may be adjusted for the rider's weight and riding conditions by changing the oil volume and compression damping. Use the chart to the right to determine the correct adjustment for you.

Condition	Rebound damping	Compression damping	Oil volume
Entire range of travel is too hard.	Softer	Softer	——
Entire range of travel is too soft (bottoming).	Stiffer	Stiffer	——
Initial travel is good, but the final stages of travel are too soft (bottoming).	——	——	Increase
The initial stages of travel are good, but the final stages are hard.	——	——	Reduce
The initial stages of travel are too soft, but the final stages are good.	Stiffer	Stiffer	Reduce
The initial stages of travel are too hard, but the final stages are good.	Softer	Softer	Increase

Air Pressure:

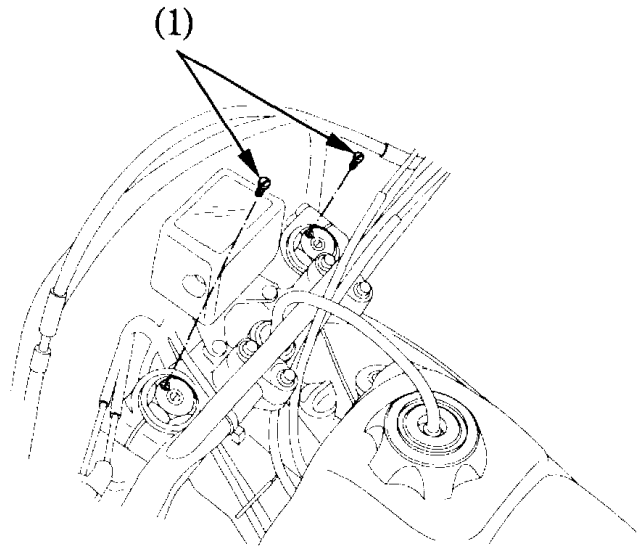
You may relieve accumulated air pressure in the fork legs by using the pressure release screws.

The front wheel should be off the ground before you release the pressure.

The standard air pressure is:

0 kPa (0 kgf/cm² , 0 psi)

1. Raise the front wheel off the ground by placing a support block under the engine.
2. Remove the pressure release screws (1).
3. Check that the O-ring is in good condition.
4. Install the pressure release screws.



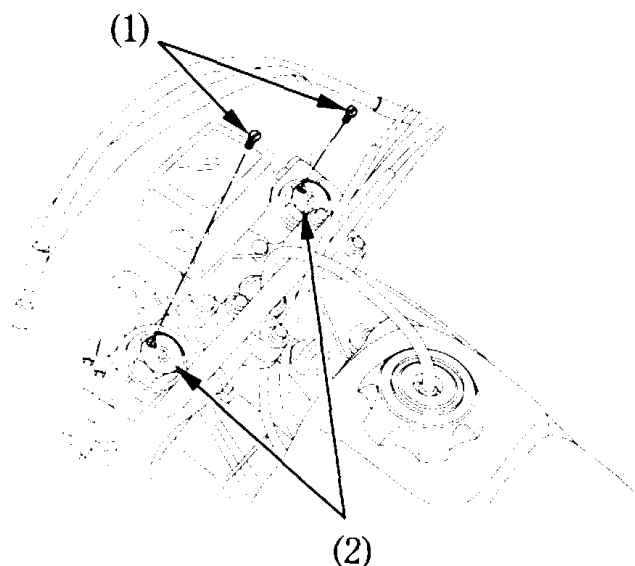
(1) Pressure release screws

Oil Volume Adjustment:

Low oil levels provide a soft ride and are for light loads and smooth riding conditions. High oil levels provide a firm ride and are for heavy loads and rough riding conditions.

1. Raise the front wheel off the ground by placing a support block under the engine.
2. Remove the pressure release screws (1) to release any accumulated air pressure.
3. Remove the fork caps (2) and springs from the fork tubes. Inspect the O-rings on the fork caps and replace them if they are damaged.

The fork caps are under extreme spring pressure. Use care when removing the caps and wear eye and face protection.



- (1) Pressure release screws
(2) Fork caps

4. Compress the fork all the way and measure the oil level (3) from the top of tubes.

Standard oil level:

120 mm (4.7 in)

To lower the oil level (decrease volume), use a syringe. Add oil with a graduated beaker for accurate measurements.

The recommended oil level range is:

90 – 155 mm (3.5 – 6.1 in)

Increase or decrease oil in increments of
5.0 cm³ (0.17 US oz , 0.18 Imp oz)

To prevent fork damage, do not fill past the recommended maximum level.

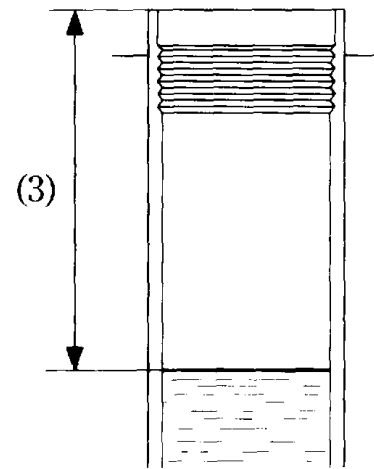
To prevent poor performance, do not use a level lower than the recommended minimum.

5. Be sure the oil level is the same in both fork tubes.

6. Clean and dry the fork spring with a lint free cloth. Install the fork springs. Oil the fork cap O-rings and install the fork caps.

Torque the fork caps to:

30 N·m (3.1 kgf·m , 22 lbf·ft)



(3) Oil level

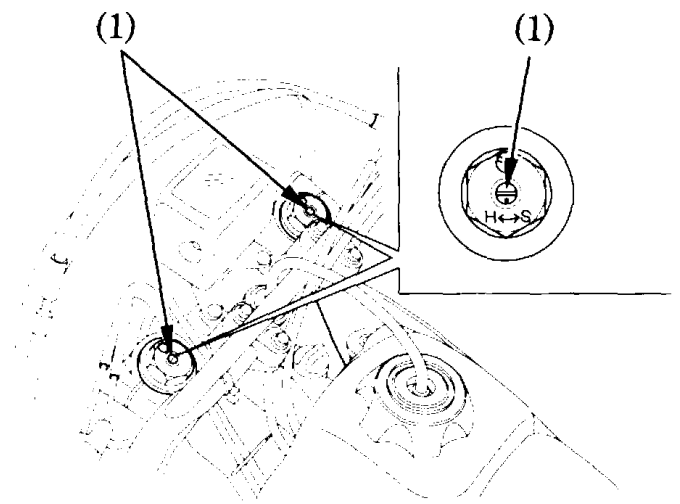
Rebound Damping:

The rebound damping adjuster has at least 18 positions. Turning the adjuster one full turn advances the adjuster 4 positions.

To adjust to the standard position:

1. Turn the damping adjuster (1) clockwise until it will no longer turn (lightly seats). This is the full hard setting.
2. Turn the damping adjuster counter-clockwise 9 clicks back from full hard. This is the standard position.
3. Make sure that both fork legs are adjusted to the same position.

Always start with the full hard position when adjusting damping.



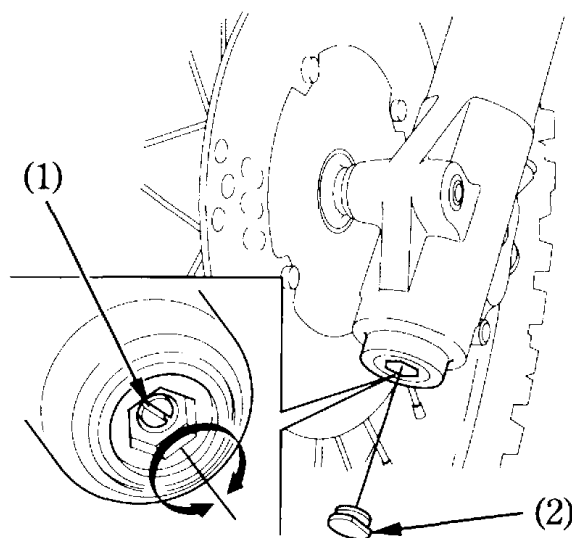
(1) Damping adjuster

Compression Damping:

This adjustment affects how quickly the fork compresses. The fork compression damping adjuster (1) has 20 positions (clicks) or more. Turning the adjuster screw one full turn changes the adjuster 4 positions. To adjust the adjuster to the standard position, proceed as follows:

1. Remove the cap (2) and turn the damping adjuster clockwise until it will no longer turn (lightly seats). This is the full hard setting.
2. Turn the damping adjuster counter-clockwise 11 clicks back from full hard. This is the standard position.
3. Make sure that both fork legs are adjusted to the same position.

Always start with the full hard position when adjusting damping.



(1) Damping adjuster

(2) Cap

Rear Suspension

The rear suspension can provide the desired ride under various rider weight and riding conditions through adjustments of the rebound damping, compression damping and spring preload adjuster.

Use the following chart to determine the correct adjustment for you.

The rear shock absorber assembly includes a damper unit that contains high pressure nitrogen gas. Do not attempt to disassemble or service the damper; it cannot be rebuilt and must be replaced when worn out. Disposal should only be done by your Honda dealer. The instructions found in this owner's manual are limited to adjustment of the shock assembly only.

Always begin with Step I , then test ride the motorcycle. If the condition still exists, proceed to Step II and test ride the motorcycle again. If necessary, proceed to Step III.

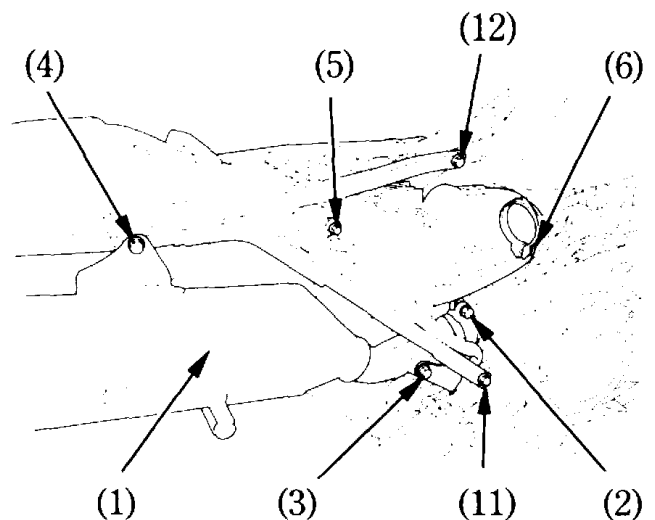
Step Condition	I	II	III
Bottoming	Shorten the spring length (to increase the pre-load)	Turn the compression damping to a stiffer posi- tion (to increase the damping force)	_____
Soft	Turn the compression damping to a stiffer posi- tion (to increase the damping force)	Shorten the spring length (to increase pre-load)	Turn the rebound damp- ing to a stiffer position (to increase the damping force)
Hard	Increase the spring length (to decrease pre- load)	Turn the compression damping to a softer posi- tion (to decrease damping force)	Turn the rebound damp- ing to a softer position (to decrease damping force)
Excessive sinking	Shorten the spring length (to increase the pre-load)	_____	_____

Spring Preload:

Preload should be adjusted when the engine is cold because it is necessary to remove the muffler.

An optional pin spanner is available for turning the lock nut and adjusting nut to adjust spring preload.

1. Remove the seat (page 50).
2. Remove the right and left side covers (page 51).
3. Remove the muffler (1).
 - ① Loosen the muffler clamp bolt (2).
 - ② Remove the lower (3) and upper muffler bolts (4).
 - ③ Pull the muffler away from the exhaust pipe.
4. Remove the rear brake fluid reservoir mounting bolt (5) and remove the brake hose from its clamp. Make sure you keep the reservoir in a level position throughout the procedure to prevent air entering the brake system.

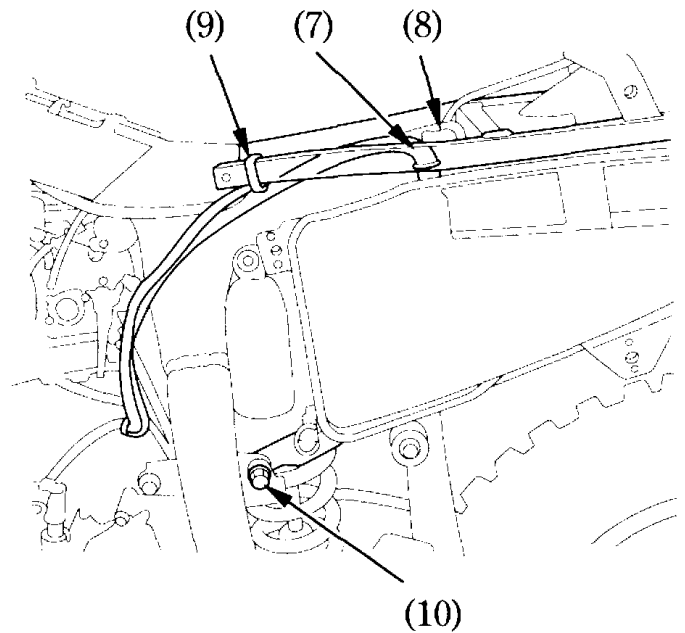


- (1) Muffler
- (2) Muffler clamp bolt
- (3) Muffler bolt (lower)
- (4) Muffler bolt (upper)
- (5) Reservoir mount bolt
- (6) Screw
- (11) Subframe lower side bolt
- (12) Subframe upper bolt

5. Loosen the screw (6) on the air cleaner connecting tube clamp and remove the air cleaner connecting tube from the carburetor.

Be careful not to allow dust into the carburetor. Severe engine damage could result.

6. Disconnect the breather tube (7) from air cleaner housing.
7. Disconnect the electrical connectors (8).
8. Loosen the band and clip (9).
9. Remove the chain cover by removing the two screws.
10. Remove the three subframe mounting bolts (10) (11) (12).
11. Remove the subframe by pulling it straight back.



- (7) Breather tube
- (8) Electrical connectors
- (9) Band and clip
- (10) Subframe lower side bolt

12. Raise the rear wheel off the ground by placing a support block under the engine.

13. Measure the spring length (13).
Standard spring length is:
236.5 mm (9.31 in)

14. Adjust the spring length.

- To increase spring preload:

Loosen the lock nut (14) with the optional pin spanner and turn the adjusting nut (15) to shorten the spring length. Do not shorten to less than:

230.5 mm (9.07 in)

- To decrease spring preload:

Loosen the lock nut (14) and turn the adjusting nut (15) to increase the spring length. Do not increase to more than:

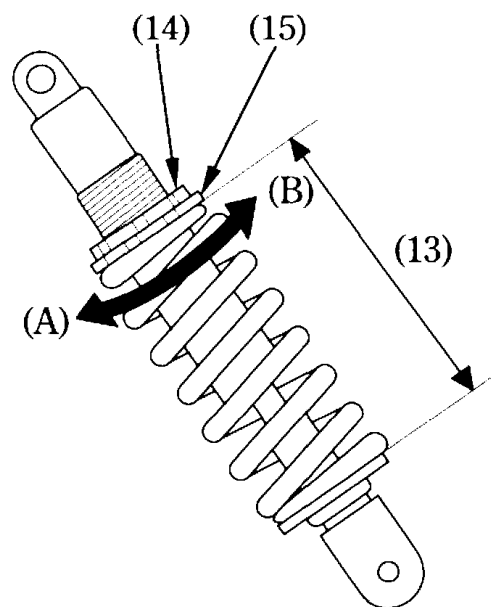
244.0 mm (9.61 in)

Each turn of the adjuster changes spring length and spring preload.

One turn equals: spring length/spring preload

1.5 mm (0.06 in) / 14.3 kg (31.5 lbs)

15. Tighten the lock nut.



(13) Spring length

(14) Lock nut

(15) Adjusting nut

(A) Increase Preload

(B) Decrease Preload

16. Install the removed parts.

- ① Install the subframe. Tighten the three bolt to the specified torque:
Subframe upper bolt (12):
26 N·m (2.7 kgf·m , 20 lbf·ft)
Subframe lower side bolts (10) (11):
42 N·m (4.3 kgf·m , 31 lbf·ft)
- ② Connect the electrical connectors by matching the cable colours.
- ③ Connect the breather tube with air cleaner housing.
- ④ Reinstall the band and the clip.
- ⑤ Tighten the air cleaner connecting tube clamp.

- ⑥ Install the muffler and tighten the bolts.
Be careful not to damage the packing installed inside the muffler clamp.
Tighten the specified torque:
Muffler clamp bolt (2):
20 N·m (2.0 kgf·m , 14 lbf·ft)
Muffler bolt (lower) (3):
32 N·m (3.3 kgf·m , 24 lbf·ft)
Muffler bolt (upper) (4):
32 N·m (3.3 kgf·m , 24 lbf·ft)

If a torque wrench is not used for this installation, see your Honda dealer as soon as possible to verify proper assembly.

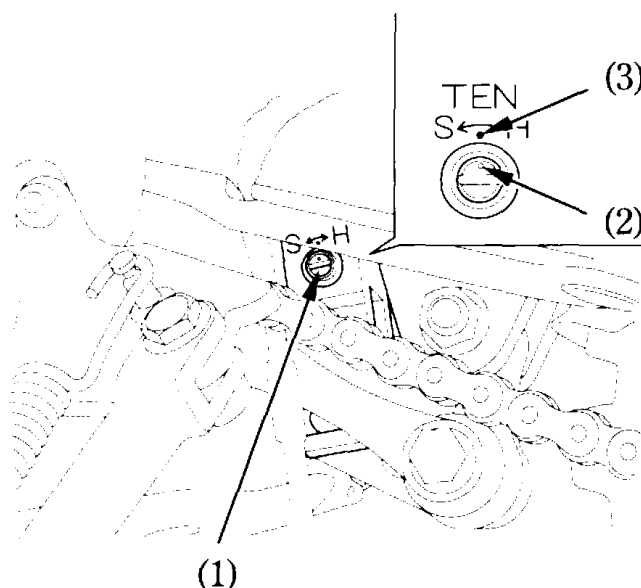
- ⑦ Reinstall the side cover, chain cover and seat.

Rebound Damping:

The rebound damping adjuster is located at the lower end of the shock absorber. It has at least 30 positions. Turning the adjuster one full turn advances the adjuster 8 positions.

To adjust to the standard position:

1. Remove the chain cover.
2. Turn the damping adjuster (1) clockwise until it will no longer turn (lightly seats). This is the full hard setting.
3. Turn the adjuster counterclockwise 11 – 15 clicks until the punch mark (2) on the adjuster aligns with the reference mark (3). This is the standard position.



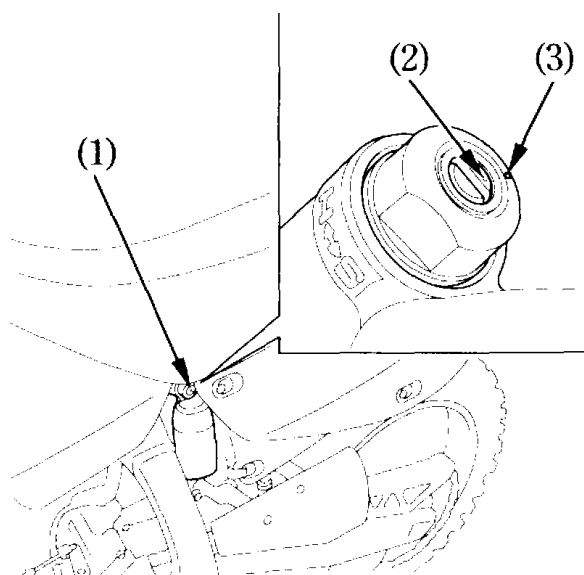
- (1) Damping adjuster
- (2) Punch mark
- (3) Reference mark

Compression Damping:

The compression damping adjuster has at least 20 positions. Turning the adjuster one full turn advances the adjuster 4 positions.

To adjust to the standard position:

1. Turn the damping adjuster (1) clockwise until it will no longer turn (lightly seats). This is the full hard setting.
2. Turn the adjuster counterclockwise 6 — 10 clicks until the punch mark (2) on the adjuster aligns with the reference mark (3). This is the standard position.



- (1) Damping adjuster
- (2) Punch mark
- (3) Reference mark

BRAKES

Both the front and rear brakes are the hydraulic disc types.

As the brake pads wear, the brake fluid level drops.

There are no adjustments to perform, but fluid level and pad wear must be inspected periodically. The system must be inspected frequently to ensure there are no fluid leaks. If the control lever or pedal free travel becomes excessive and the brake pads are not worn beyond the recommended limit (page 97), there is probably air in the brake system and it must be bled. See your Honda dealer for this service.

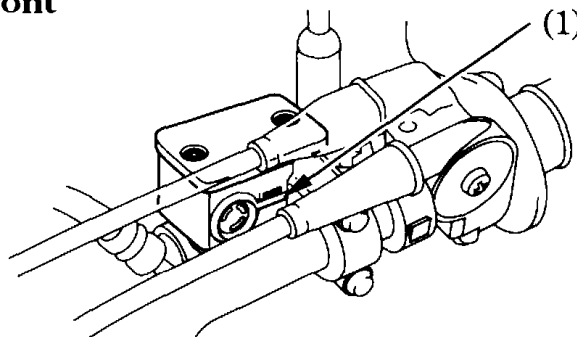
Front Brake Fluid Level:

With the motorcycle in an upright position, check the fluid level. It should be above the LOWER level mark (1). If the level is at or below the LOWER level mark (1), check the brake pads for wear (page 97).

Worn pads should be replaced. If the pads are not worn, have your brake system inspected for leaks.

The recommended brake fluid is Honda DOT 4 brake fluid from a sealed container, or an equivalent.

Front



(1) LOWER level mark

Other Checks:

Make sure there are no fluid leaks. Check for deterioration or cracks in the hoses and fittings.

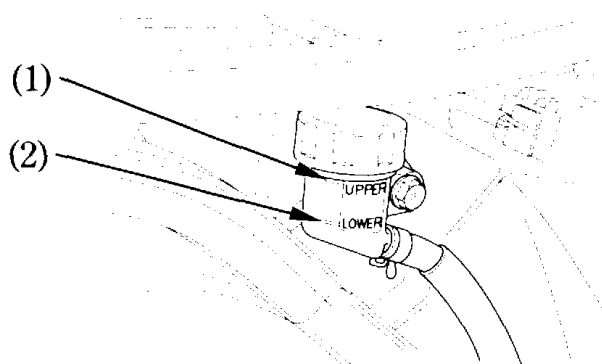
Rear Brake Fluid Level:

With the motorcycle in an upright position, check the fluid level. It should be between the UPPER (1) and LOWER (2) level marks. If the level is at or below the LOWER level mark (2), check the brake pads for wear (page 97).

Worn pads should be replaced. If the pads are not worn, have your brake system inspected for leaks.

The recommended brake fluid is Honda DOT 4 brake fluid from a sealed container, or an equivalent.

Rear



- (1) UPPER level mark
- (2) LOWER level mark

Other Checks:

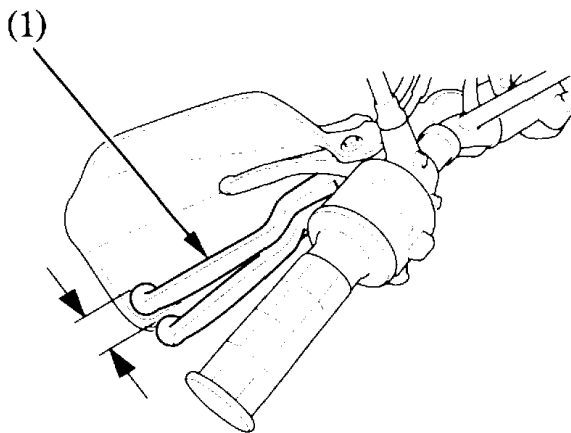
Make sure there are no fluid leaks. Check for deterioration or cracks in the hoses and fittings.

CLUTCH

Clutch adjustment may be required if the motorcycle stalls when shifting into gear or tends to creep; or if the clutch slips, causing acceleration to lag behind engine speed. Minor adjustments can be made with the clutch cable adjuster (4) at the lever (1).

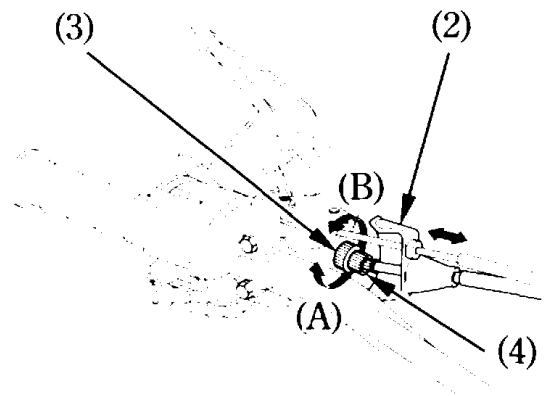
Normal clutch lever free play is:

10–20 mm (0.4–0.8 in)



(1) Clutch lever

1. Pull back the rubber dust cover (2).
2. Loosen the lock nut (3) and turn the adjuster (4). Tighten the lock nut (3) and check the adjustment.
3. If the adjuster is threaded out near its limit or if the correct free play cannot be obtained, loosen the lock nut (3) and turn in the cable adjuster (4) completely. Tighten the lock nut (3) and install the dust cover.



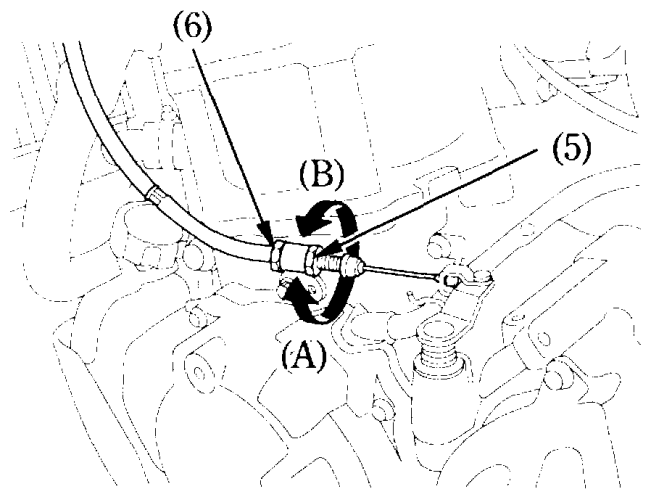
- | | |
|---------------------------|------------------------|
| (2) Dust cover | (A) Increase free play |
| (3) Lock nut | (B) Decrease free play |
| (4) Clutch cable adjuster | |

4. Loosen the lock nut (5) at the lower end of the cable. Turn the adjusting nut (6) to obtain the specified free play. Tighten the lock nut and check the adjustment.
5. Start the engine, pull in the clutch lever and shift into gear. Make sure the engine does not stall and the motorcycle does not creep. Gradually release the clutch lever and open the throttle. The motorcycle should begin to move smoothly and accelerate gradually.

If proper adjustment cannot be obtained or the clutch does not work correctly, see your Honda dealer.

Other Checks:

Check the clutch cable for kinks or signs of wear that could cause sticking or failure. Lubricate the clutch cable with a commercially available cable lubricant to prevent premature wear and corrosion.



(5) Lock nut
(6) Adjusting nut

(A) Increase free play
(B) Decrease free play

COOLANT

Coolant Recommendation

The owner must properly maintain the coolant to prevent freezing, overheating, and corrosion. Use only high quality ethylene glycol antifreeze containing corrosion protection inhibitors specifically recommended for use in aluminum engines. (SEE ANTIFREEZE CONTAINER LABEL).

Use only low-mineral drinking water or distilled water as a part of the antifreeze solution. Water that is high in mineral content or salt may be harmful to the aluminum engine.

Using coolant with silicate inhibitors may cause premature wear of water pump seals or blockage of radiator passages.

Using tap water may cause engine damage.

The factory provides a 50/50 solution of antifreeze and distilled water in this motorcycle. This coolant solution is recommended for most operating temperatures and provides good corrosion protection. A higher concentration of antifreeze decreases the cooling system performance and is recommended only when additional protection against freezing is needed. A concentration of less than 40/60 (40% antifreeze) will not provide proper corrosion protection. During freezing temperatures, check the cooling system frequently and add higher concentrations of antifreeze (up to a maximum of 60% antifreeze) if required.

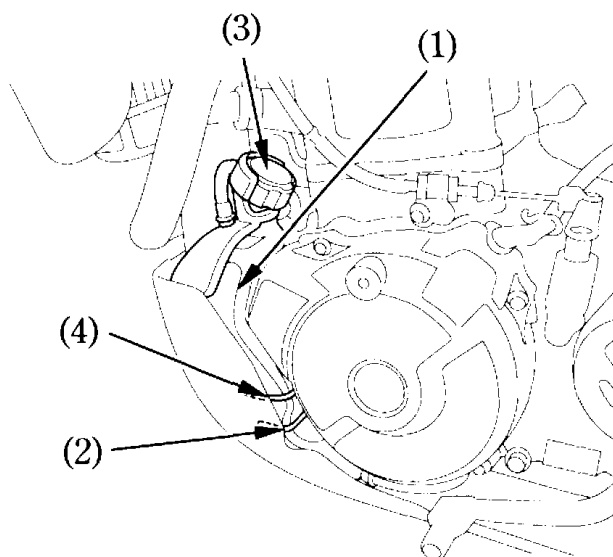
Inspection

The reserve tank is located under the left radiator.

Check the coolant level in the reserve tank (1) while the engine is at the normal operating temperature with the motorcycle in an upright position. If the coolant level is below the LOWER level mark (2), remove the reserve tank cap (3) and add coolant mixture until it reaches the UPPER level mark (4). Always add coolant to the reserve tank.

Do not attempt to add coolant by removing the radiator cap.

If the reserve tank is empty, or if coolant loss is excessive, check for leaks and see your Honda dealer for repair.



- | | |
|----------------------|----------------------|
| (1) Reserve tank | (3) Reserve tank cap |
| (2) LOWER level mark | (4) UPPER level mark |

ENGINE OIL

Engine Oil Level Check

Check the engine oil level each day before riding the motorcycle.

The oil filler cap is in front of fuel tank and has a dipstick for measuring the oil level. Oil level must be maintained between the upper (1) and lower (2) level marks on the oil filler cap/dipstick (3).

The oil level cannot be checked accurately immediately after the engine has been run at high speed.

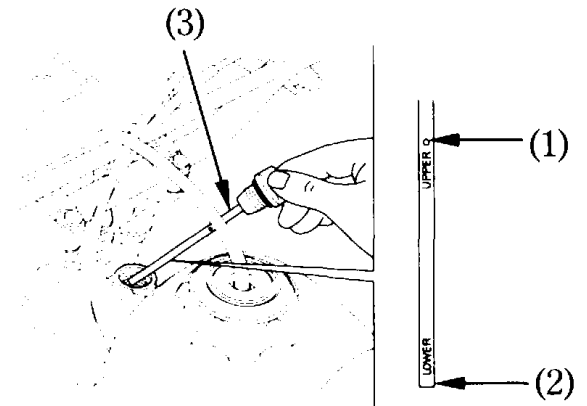
Make sure that motorcycle is standing upright on firm level ground while idling.

1. Park the motorcycle on a firm, level surface.
2. Start the engine and let it idle for 5 minutes. If the air temperature is below 10°C (50°F), let the engine idle for an additional 5 minutes (a total of 10 minutes).

An engine that is not warmed sufficiently may give an inaccurate (low) oil level reading. During idling, support the

motorcycle in an upright position to assure an accurate oil level reading. Stop the engine.

3. Immediately remove the oil filler cap/dipstick (3) and wipe it clean.
4. Hold the motorcycle upright. Insert the oil filler cap/dipstick until it seats, but don't screw it in.



- (1) UPPER level mark
- (2) LOWER level mark
- (3) Oil filler cap/dipstick

5. Remove the oil filler cap/dipstick. The oil level should be between the upper (1) and lower (2) level marks on the oil filler cap/dipstick.

If required, add the specified oil (see page 78) up to the upper level mark. Do not overfill.

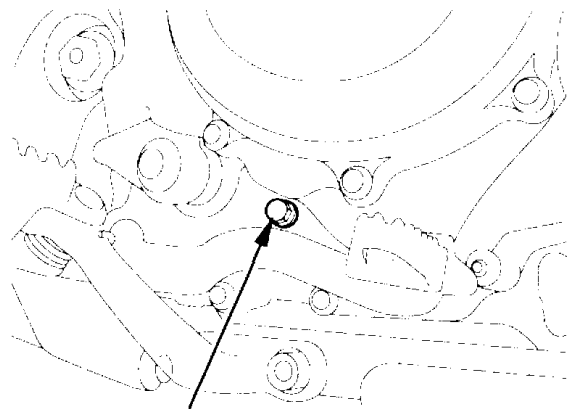
NOTICE

Running the engine with insufficient oil pressure may cause serious engine damage.

6. Reinstall the oil filler cap/dipstick. Check for oil leaks.

The engine contains a crankcase oil level check bolt (4). Remove the bolt and check that the level is flush with the lower edge of the hole.

If it is, start the engine and check the engine oil level. If the crankcase oil level is low, add the recommended engine oil before starting the engine to check the engine oil level.



(4)

(4) Crankcase oil level check bolt

FUEL

Fuel Valve

The three way fuel valve (1) is on the right side below the fuel tank.

OFF

With the fuel valve in the OFF position, fuel cannot flow from the tank to the carburetor. Turn the valve OFF whenever the motorcycle is not in use.

ON

With the fuel valve in the ON position, fuel will flow from the main fuel supply to the carburetor.

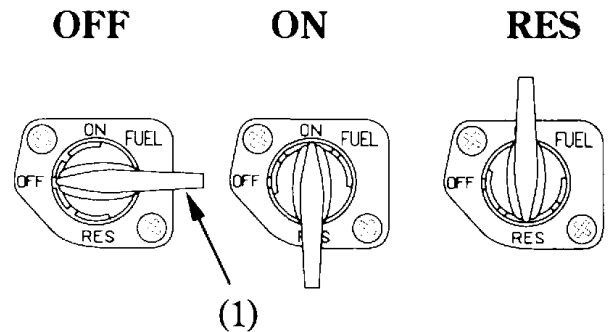
RES

With the fuel valve in the RES position, fuel will flow from the reserve fuel supply to the carburetor. Use the reserve fuel only when the main supply is gone. Refill the tank as soon as possible after switching to RES.

The reserve fuel supply is:

2.0 l (0.53 US gal , 0.44 Imp gal)

Remember to check that the fuel valve is in the ON position each time you refuel. If the valve is left in the RES position, you may run out of fuel with no reserve.



(1) Fuel valve

Fuel Tank

The fuel tank capacity including the reserve supply is:

10.0 ℓ (2.64 US gal , 2.20 Imp gal)

The reserve supply alone is:

2.0 ℓ (0.53 US gal , 0.44 Imp gal)

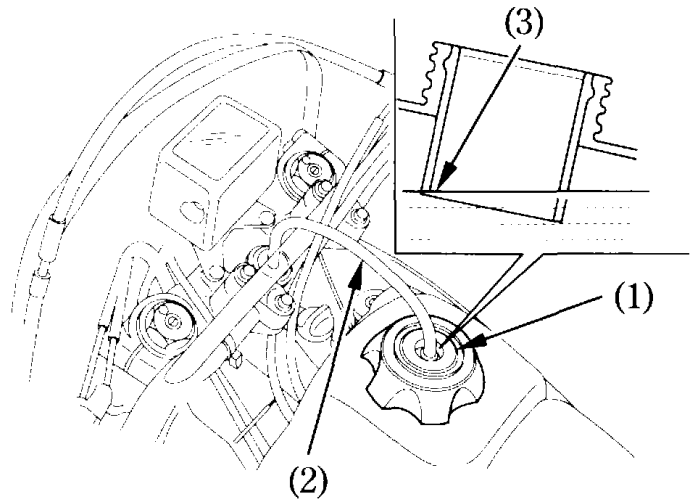
To open the fuel fill cap (1), pull out the breather tube (2) from the steering stem nut. Then turn the fuel fill cap counterclockwise.

After refueling, be sure to tighten the fuel fill cap firmly by turning it clockwise. Insert the breather tube into the steering stem nut.

⚠ WARNING

Petrol is highly flammable and explosive. You can be burned or seriously injured when handling fuel.

- Stop the engine and keep heat, sparks, and flame away.
- Refuel only outdoors.
- Wipe up spills immediately.



- (1) Fuel fill cap
(2) Breather tube

- (3) Filler neck

Use unleaded or low-lead petrol with a research octane number of 98 or higher. We recommend that you use unleaded petrol because it produces fewer engine and spark plug deposits and extends the life of exhaust system components.

NOTICE

If “spark knock” or “pinking” occurs at a steady engine speed under normal load, change brands of petrol. If spark knock or pinking persists, consult your Honda dealer. Failure to do so is considered misuse, and damage caused by misuse is not covered by Honda’s Limited Warranty.

Petrol Containing Alcohol

If you decide to use a petrol containing alcohol (gasohol), be sure it's octane rating is at least as high as that recommended by Honda. There are two types of "gasohol": one containing ethanol, and the other containing methanol. Do not use petrol that contains more than 10 % ethanol. Do not use petrol containing methanol (methyl or wood alcohol) that does not also contain cosolvents and corrosion inhibitors for methanol. Never use petrol containing more than 5 % methanol, even if it has cosolvents and corrosion inhibitors.

Fuel system damage or engine performance problems resulting from the use of fuels that contain alcohol is not covered under the warranty. Honda cannot endorse the use of fuels containing methanol since evidence of their suitability is as yet incomplete.

Before buying fuel from an unfamiliar station, try to find out if the fuel contains alcohol. If it does, confirm the type and percentage of alcohol used. If you notice any undesirable operating symptoms while using a petrol that contains alcohol, or one that you think contains alcohol, switch to a petrol that you know does not contain alcohol.

TYRES

To safely operate your motorcycle, the tyres must be the proper type (off-road) and size, in good condition with adequate tread, and correctly inflated.

⚠ WARNING

Using tyres that are excessively worn or improperly inflated can cause a crash in which you can be seriously hurt or killed.

Follow all instructions in this owner's manual regarding tyre inflation and maintenance.

Air Pressure

Properly inflated tyres provide the best combination of handling, tread life, and riding comfort. Generally, underinflated tyres wear unevenly, adversely affect handling, and are more likely to fail from being overheated. Underinflated tyres can also cause wheel damage in rocky terrain. Overinflated tyres make your motorcycle ride more harshly, are more prone to damage from surface hazards, and wear unevenly.

Make sure the valve stem caps are secure. If necessary, install a new cap.

Always check air pressure when your tyres are “cold.” If you check air pressure when your tyres are “warm”—even if your motorcycle has only been ridden for a few miles—the readings will be higher. If you let air out of warm tyres to match the recommended cold pressures, the tyres will be underinflated.

The recommended “cold” tyre pressures are:

Front	175 kPa (1.75 kgf/cm ² , 25 psi)
Rear	125 kPa (1.25 kgf/cm ² , 18 psi)

Inspection

Whenever you check the tyre pressures, you should also examine the tyre treads and sidewalls for wear, damage, and foreign objects:

Look for:

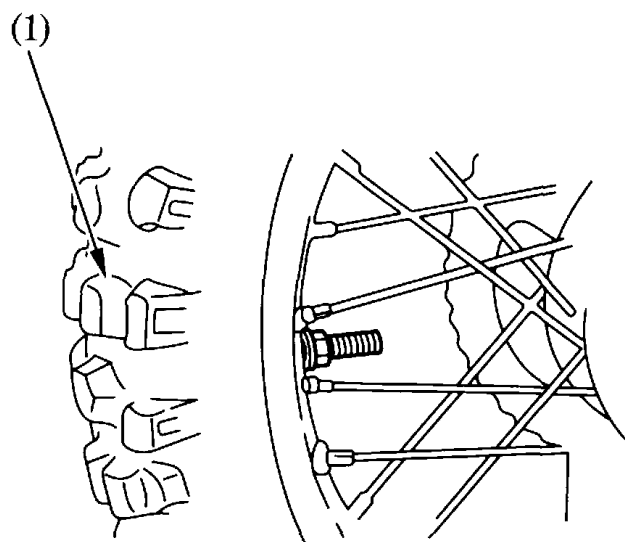
- Bumps or bulges in the side of the tyre or the tread. Replace the tyre if you find any bumps or bulges.
- Cuts, splits or cracks in the tyre. Replace the tyre if you can see fabric or cord.
- Excessive tread wear.

Also, if you hit a pothole or hard object, pull to the side of the road as soon as you safely can and carefully inspect the tyres for damage.

Tread Wear

Replace tyres before tread depth at the center of the tyre reaches the following limit:

Minimum tread depth	
Front:	3.0 mm (0.12 in)
Rear:	3.0 mm (0.12 in)



(1) Tyre tread depth

Tube Repair and Replacement

If a tube is punctured or damaged, you should replace it as soon as possible. A tube that is repaired may not have the same reliability as a new one, and it may fail while you are riding.

If you need to make a temporary repair by patching a tube or using an aerosol sealant, ride cautiously at reduced speed and have the tube replaced before you ride again. Any time a tube is replaced, the tyre should be carefully inspected as described on page 43 .

Tyre Replacement

The tyres that came on your motorcycle were designed to match the performance capabilities of your motorcycle and provide the best combination of handling, braking, durability and comfort.

⚠ WARNING

Installing improper tyres on your motorcycle can affect handling and stability. This can cause a crash in which you can be seriously hurt or killed.

Always use the size and type of tyres recommended in this owner's manual.

The recommended tyres for your motorcycle are:

Front: 3.00–21 51P

Rear: 4.50–18 70P

Whenever you replace a tyre, use one that is equivalent to the original and be sure the wheel is balanced after the new tyre is installed.

Also remember to replace the inner tube whenever you replace a tyre. The old tube will probably be stretched, and if installed in a new tyre, it could fail.

ESSENTIAL INDIVIDUAL COMPONENTS

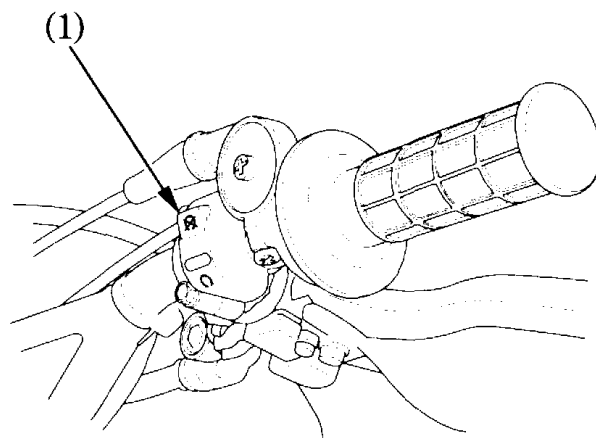
RIGHT HANDLEBAR CONTROLS

Engine Stop Switch

The engine stop switch (1) is next to the throttle grip. When the switch is in the

○ (RUN) position, the engine will operate.

When the switch is in the ☒ (OFF) position, the engine will not operate. This switch is intended primarily as a safety or emergency switch and should normally remain in the ○ (RUN) position.



(1) Engine stop switch

LEFT HANDLEBAR CONTROLS

Headlight Dimmer Switch (1)

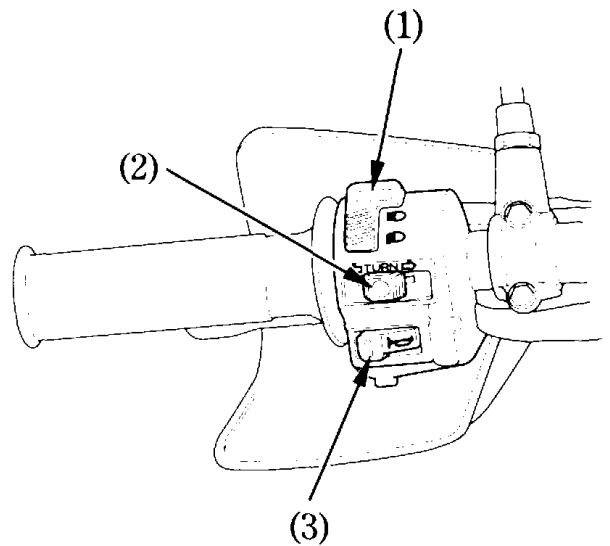
Push the dimmer switch to ☰ (HI) to select high beam or to ☷ (LO) to select low beam.

Turn Signal Switch (2)

Move to ⇐ (L) to signal a left turn, ⇨ (R) to signal a right turn. Press to turn signal off.

Horn Button (3)

Press the button to sound the horn.



- (1) Headlight dimmer switch
- (2) Turn signal switch
- (3) Horn button

FEATURES

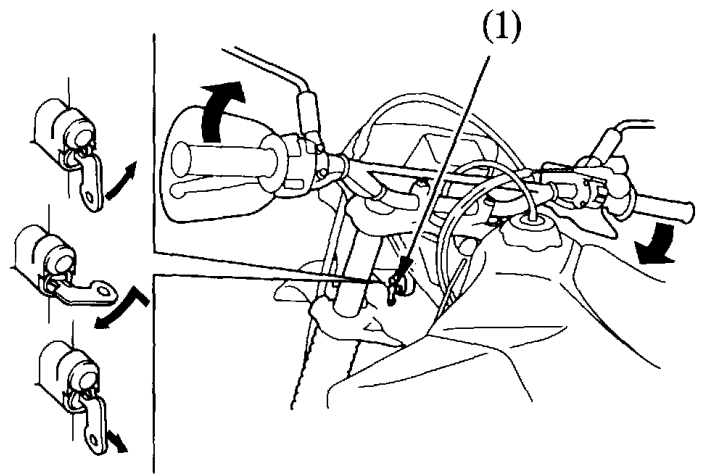
(Not required for operation)

STEERING LOCK

The steering lock (1) is on the steering column.

To lock the steering, turn the handlebar all the way to the right, insert the steering key into the lock, turn the key counterclockwise as far as possible. Then, press the lock all the way in, turn the key back to the original position, and remove the key.

To unlock the steering, perform the locking sequence in the reverse order.



(1) Steering lock

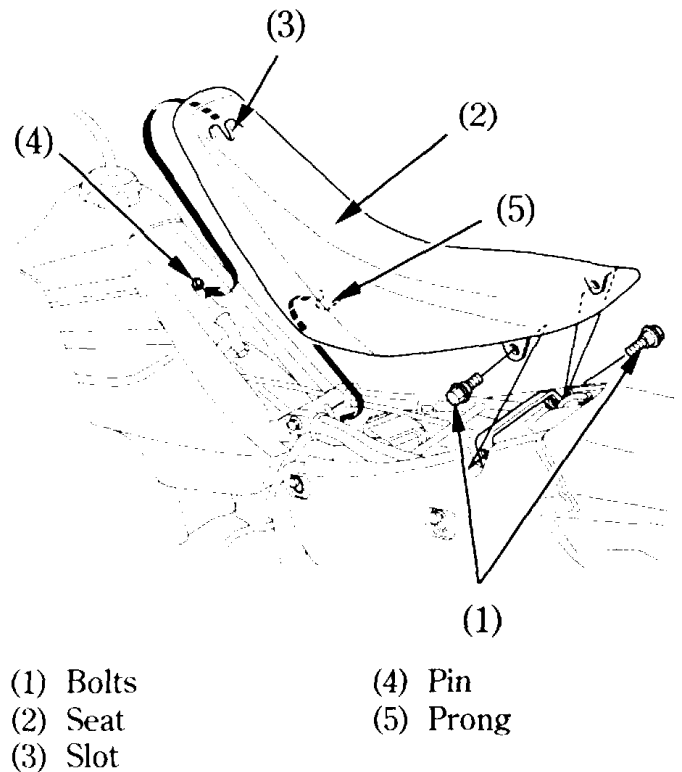
SEAT

Removal:

1. Remove the two bolts (1) securing the seat (2).
2. Slide the seat back.

Installation:

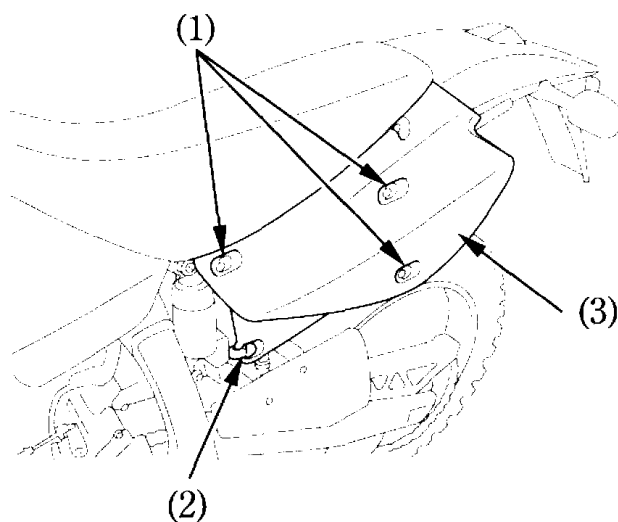
1. Align the locating slot (3) under the front of the seat with the pin (4) on the rear of the fuel tank.
2. Align the locating prong (5) on the bottom of the seat with the frame.
3. Slide the seat into position.
4. Install the bolts and tighten them.



SIDE COVER

Left Side Cover Removal:

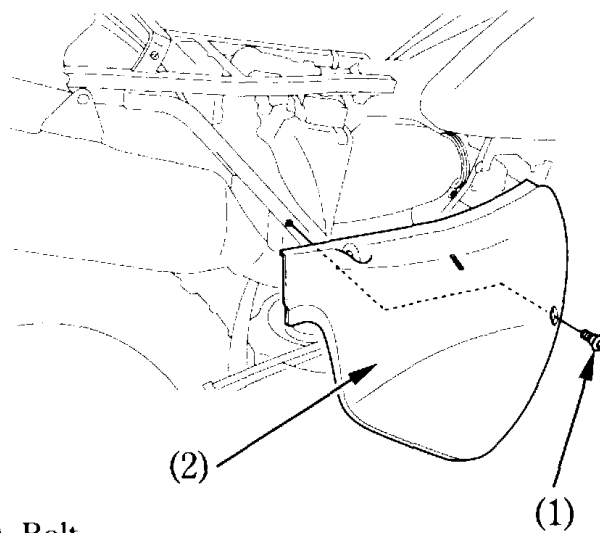
1. Lift the D-ring on each quick-release fastener (1) and turn it counterclockwise until it releases.
2. Unlatch the retainer clip (2).
3. Remove the left side cover (3).



- (1) Quick-release fastener
- (2) Retainer clip
- (3) Left side cover

Right Side Cover Removal:

1. Remove the right seat bolt (page 50).
2. Remove the side cover mount bolt (1).
3. Pull the right side cover (2) out.



- (1) Bolt
- (2) Right side cover

OPERATION

PRE-RIDE INSPECTION

For your safety, it is very important to take a few moments before each ride to walk around your motorcycle and check its condition. If you detect any problem, be sure you take care of it, or have it corrected by your Honda dealer.

WARNING

Improperly maintaining this motorcycle or failing to correct a problem before riding can cause a crash in which you can be seriously hurt or killed.

Always perform a pre-ride inspection before every ride and correct any problems.

1. Engine oil level—add engine oil if required (page 36). Check for leaks.
2. Fuel level—fill fuel tank when necessary (page 39). Check for leaks.
3. Coolant level—add coolant if required. Check for leaks (pages 34 – 35).
4. Front and rear brakes—check operation; make sure there is no brake fluid leakage.
5. Tyres—check condition and pressure (pages 42 – 46).
6. Spokes and rim locks—check and tighten if necessary (page 104).
7. Drive chain—check condition and slack (page 91). Adjust and lubricate if necessary.
8. Chain guide slider and slipper—check slider wear (page 92).

-
9. Throttle—check for smooth opening and full closing in all steering positions. Adjust free play if necessary (pages 87 — 88).
 10. Clutch—check operation, and adjust if necessary (pages 32 — 33).
 11. Lights and horn—check that headlight, tail/brake light, turn signals, indicators and horn function properly.
 12. Spark plug and high tension terminal — check for looseness.
 13. Engine stop switch—check for proper function (page 47).
 14. Nuts, bolts, fasteners — check the front wheel to see that the axle nut and axle holder nuts are tightened securely. Check security of all other nuts, bolts, and fasteners.


STARTING THE ENGINE

Always follow the proper starting procedure described below.

This motorcycle can be kickstarted with the transmission in gear by disengaging the clutch before operating the kickstarter.

Your motorcycle's exhaust contains poisonous carbon monoxide gas. High levels of carbon monoxide can collect rapidly in enclosed areas such as a garage. Do not run the engine with the garage door closed. Even with the door open, run the engine only long enough to move your motorcycle out of the garage.

Preparation

Make sure that the transmission is in neutral. Turn the engine stop switch to  (RUN) and the fuel valve ON.

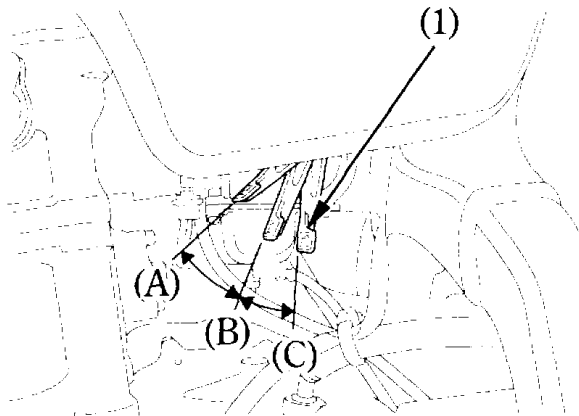
Starting Procedure

To restart a warm engine, follow the procedure for "High Air Temperature."

Normal Air Temperature

10° – 35° C (50° – 95° F)

1. Pull the choke lever (1) up all the way to Fully ON (A).



- (1) Choke lever
- (A) Fully ON
(B) Detent position
(C) Fully OFF

2. Keep the throttle fully closed.

3. Operate the kickstarter to start the engine. Starting from the top of the stroke, kick through to the bottom with a rapid, continuous motion. Do not operate the throttle.

NOTICE

Allowing the kickstarter to snap back freely against the pedal stop can damage the engine case.

4. Immediately after the engine starts, push the choke lever (1) down to the Detent Position (B).

NOTICE

Extended use of the choke may impair piston and cylinder wall lubrication and damage the engine.

5. Warm up the engine by opening and closing the throttle slightly.
6. About a half minute after the engine starts, push the choke lever (1) down all the way to Fully OFF (C).
If idling is unstable, open the throttle slightly.

High Air Temperature 35°C (95°F) or above

1. Do not use the choke.
2. Keep the throttle fully closed.
3. Start the engine following step 3 under "Normal Air Temperature."

If the engine fails to restart:

1. Pull the decompression lever (page 58) in, open the throttle fully, turn the engine stop switch to ☒ (OFF) and operate the kickstarter pedal several times to clear the engine. Release the decompression lever. Turn the engine stop switch to ○ (RUN).
2. Start the engine following step 2 under "Normal Air Temperature".

Low Air Temperature

10° C (50° F) or below

1. Follow steps 1–3 under “Normal Air Temperature”.
2. Warm up the engine by opening and closing the throttle slightly.
3. Continue warming up the engine until it runs smoothly and responds to the throttle when the choke lever (1) down all the way to fully OFF (C).

NOTICE

Extended use of the choke may impair piston and cylinder wall lubrication and damage the engine.

Manual Starter Decompressor

Although an engine decompression system is interlocked with the kickstarter, the manual starter decompressor can also be used if you experience starting difficulties.

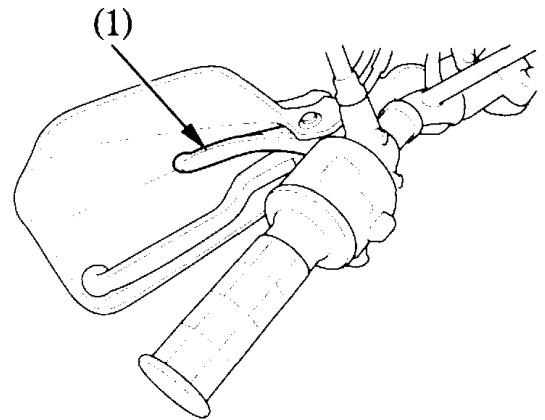
To Operate:

1. With the throttle fully closed, push down lightly on the kickstarter until you feel some resistance.
2. Pull the decompressor lever (1) and push the kickstarter down again slowly about 1/4 to 1/2 of a full stroke.
3. Release the decompressor lever and kickstart the motorcycle in the usual manner.

The manual starter decompressor can also help restart the engine in an off-road situation where the motorcycle is rolling down a hill.

1. Close the throttle. Pull the clutch lever in and shift into 2nd or 3rd gear.
2. With the motorcycle rolling, release the clutch lever.

3. If the rear tyre skids instead of turning over the engine, pull the decompressor lever. Releasing compression allows the rear wheel to roll while turning the engine over.
4. Release the decompressor lever. If the engine does not start, pull the decompressor lever again. Wait until the motorcycle gains speed and release the decompressor lever.



(1) Decompressor lever

Flooded Engine

If the engine fails to start after repeated attempts, it may be flooded with excess fuel. To clear a flooded engine, push the choke lever down to Fully OFF (C). Turn the engine stop switch to ☒ (OFF). Pull and hold the manual decompressor lever. Open the throttle fully and crank the engine several times with the kickstarter. Release the decompressor lever, turn the engine stop switch to ○ (RUN) and follow the “High Air Temperature” Starting Procedure (page 56).

RUNNING-IN

Help assure your motorcycle's future reliability and performance by paying extra attention to how you ride during the first operating day or 25 km (15 miles).

During this period, avoid full-throttle starts and rapid acceleration.

RIDING

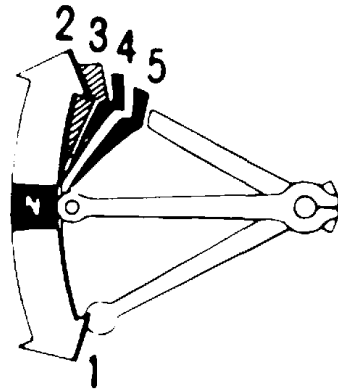
Review Motorcycle Safety (pages 1 – 9) before you ride.

Make sure the side stand is fully retracted before riding the motorcycle. If the stand is extended, it may interfere with control during a left turn.

Make sure you understand the function of the side stand mechanism. (See MAINTENANCE SCHEDULE on page 70 and explanation for SIDE STAND on page 105).

1. After the engine has been warmed up, the motorcycle is ready for riding.
2. While the engine is idling, pull in the clutch lever and depress the gearshift pedal to shift into 1st (low) gear.

3. Slowly release the clutch lever and at the same time gradually increase engine speed by opening the throttle. Coordination of the throttle and clutch lever will assure a smooth positive start.
4. When the motorcycle attains a moderate speed, close the throttle, pull in the clutch lever and shift to 2nd gear by raising the gearshift pedal. This sequence is repeated to progressively shift to 3rd, 4th and 5th (top) gears.



5. Raise the pedal to shift to a higher gear and depress the pedal to shift to a lower gear. Each stroke of the pedal engages the next gear in sequence. The pedal automatically returns to the horizontal position when released.

- Do not downshift when traveling at a speed that would force the engine to overrev in the next lower gear; the rear wheel may lose traction, resulting in a possible loss of vehicle control.
- Do not shift gears without disengaging the clutch and closing the throttle. The engine and drive train could be damaged by overspeed and shock.
- Do not tow the motorcycle or coast for long distances while the engine is off. The transmission will not be properly lubricated and damage may result.
- Do not run the engine at high rpm with the transmission in neutral or the clutch lever pulled in. Serious engine damage may result.

BRAKING


For normal braking, gradually apply both the front and rear brakes while downshifting to suit your road speed.

For maximum deceleration, close the throttle and apply the front and rear brakes firmly. Pull in the clutch lever before coming to a complete stop to prevent stalling the engine.

Important Safety Reminders:

- Independent operation of only the brake lever or brake pedal reduces stopping performance.
- Extreme application of the brake controls may cause wheel lock, reducing control of the motorcycle.
- When possible, reduce speed or brake before entering a turn; closing the throttle or braking in mid-turn may cause wheel slip. Wheel slip will reduce control of the motorcycle.
- When riding in wet or rainy conditions, or on loose surfaces, the ability to maneuver and stop will be reduced. All of your actions should be smooth under these conditions. Rapid acceleration, braking or turning may cause loss of control. For your safety, exercise extreme caution when braking, accelerating or turning.
- When descending a long, steep grade, use engine compression braking by downshifting, with intermittent use of both brakes.
Continuous brake application can overheat the brakes and reduce their effectiveness.
- Riding with your foot resting on the brake pedal or your hand on the brake lever may actuate the brakelight, giving a false indication to other drivers. It may also overheat the brakes, reducing effectiveness.

PARKING

1. After stopping the motorcycle, shift the transmission into neutral and turn the fuel valve OFF and turn the handlebar fully to the left. Turn the engine stop switch to  (OFF).
2. Use the side stand to support the motorcycle while parked.

Park the motorcycle on firm, level ground to prevent it from falling over.

If you must park on a slight incline, aim the front of the motorcycle uphill to reduce the possibility of rolling off the side stand or overturning.

ANTI-THEFT TIPS

1. Always lock the steering and never leave the key in the steering lock. This sounds simple but people do forget.
2. Be sure the registration information for your motorcycle is accurate and current.
3. Park your motorcycle in a locked garage whenever possible.
4. Use an additional anti-theft device of good quality.
5. Put your name, address, and phone number in this Owner's Manual and keep it on your motorcycle at all times. Many times stolen motorcycles are identified by information in the Owner's Manuals that are still with them.

NAME: _____

ADDRESS: _____

PHONE NO: _____

MAINTENANCE

THE IMPORTANCE OF MAINTENANCE

A well-maintained motorcycle is essential for safe, economical and trouble-free riding. It will also help reduce air pollution.

Because this motorcycle is capable of being ridden over rough off-road terrain as well as on pavement, careful pre-ride inspections and good maintenance are especially important.

To help you properly care for your motorcycle, the following pages include a Maintenance Schedule and a Maintenance Record for regularly scheduled maintenance.

These instructions are based on the assumption that the motorcycle will be used exclusively for its designed purpose. Sustained high speed operation or operation in unusually wet or dusty conditions will require more frequent service than

specified in the Maintenance Schedule. Consult your Honda dealer for recommendations applicable to your individual needs and use.

If your motorcycle overturns or becomes involved in a crash, be sure your Honda dealer inspects all major parts, even if you are able to make some repairs.

WARNING

Improperly maintaining this motorcycle or failing to correct a problem before you ride can cause a crash in which you can be seriously hurt or killed.

Always follow the inspection and maintenance recommendations and schedules in this owner's manual.

MAINTENANCE SAFETY

This section includes instructions on some important maintenance tasks. You can perform some of these tasks with the tools provided — if you have basic mechanical skills.

Other tasks that are more difficult and require special tools are best performed by professionals. Wheel removal should normally be handled only by a Honda technician or other qualified mechanic; instructions are included in this manual only to assist in emergency service.

Some of the most important safety precautions follow. However, we cannot warn you of every conceivable hazard that can arise in performing maintenance. Only you can decide whether or not you should perform a given task.

WARNING

Failure to properly follow maintenance instructions and precautions can cause you to be seriously hurt or killed.

Always follow the procedures and precautions in this owner's manual.

SAFETY PRECAUTIONS

- Make sure the engine is off before you begin any maintenance or repairs. This will help eliminate several potential hazards:
 - * **Carbon monoxide poisoning from engine exhaust.**
Be sure there is adequate ventilation whenever you operate the engine.
 - * **Burns from hot parts.**
Let the engine and exhaust system cool before touching.
 - * **Injury from moving parts.**
Do not run the engine unless instructed to do so.
- Read the instructions before you begin, and make sure you have the tools and skills required.
- To help prevent the motorcycle from falling over, park it on a firm, level surface, using the side stand or a maintenance stand to provide support.

- To reduce the possibility of a fire or explosion, be careful when working around petrol. Use only nonflammable solvent, not petrol, to clean parts. Keep cigarettes, sparks and flames away from all fuel-related parts.

Remember that your Honda dealer knows your motorcycle best and is fully equipped to maintain and repair it.

To ensure the best quality and reliability, use only new genuine Honda parts or their equivalents for repair and replacement.

MAINTENANCE SCHEDULE

Perform the Pre-ride Inspection (page 52) at each scheduled maintenance period.

I: INSPECT AND CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY

C: CLEAN R: REPLACE A: ADJUST L: LUBRICATE

The following Maintenance Schedule specifies all maintenance required to keep your motorcycle in peak operating condition. Maintenance work should be performed in accordance with standards and specifications of Honda by properly trained and equipped technicians. Your Honda dealer meets all of these requirements.

- * Should be serviced by your Honda dealer, unless the owner has proper tools and service data and is mechanically qualified. Refer to the Official Honda Shop Manual.
- ** In the interest of safety, we recommend these items be serviced only by your Honda dealer.

Honda recommends that your Honda dealer should road test your motorcycle after each periodic maintenance is carried out.

NOTE: (1) Service more frequently when ridden in wet or dusty conditions.
(2) Replace every 2 years. Replacement requires mechanical skill.

ITEMS	FREQUENCY	WHICHEVER → COMES FIRST ↓	km mi	INITIAL MAINT.	REGULAR MAINT. INTERVAL					REFER TO PAGE
					150	1,000	2,000	3,000	4,000	
		NOTE	MONTH	100	600	1,200	1,800	2,400		
* FUEL LINE						I		I		—
** FUEL STRAINER SCREEN						C		C		—
* THROTTLE OPERATION						I		I		87
AIR CLEANER		NOTE (1)			C	C	C	C		76
SPARK PLUG					I	I	I	I		84
* VALVE CLEARANCE				I	I	I	I	I		—
ENGINE OIL				R	R	R	R	R		78
ENGINE OIL FILTER				R	R	R	R	R		82
* ENGINE OIL STRAINER SCREEN IN DOWN TUBE				I		C		C		—
* DECOMPRESSOR SYSTEM				I	I	I	I	I		58
** ENGINE IDLE SPEED				I	I	I	I	I		86
RADIATOR COOLANT		NOTE (2)				I		R		34
* COOLING SYSTEM				I	I	I	I	I		—

ITEMS	FREQUENCY	WHICHEVER → COMES FIRST ↓	INITIAL MAINT.	REGULAR MAINT. INTERVAL					REFER TO PAGE
				km	1,000	2,000	3,000	4,000	
		NOTE	MONTH	mi	600	1,200	1,800	2,400	
	DRIVE CHAIN	NOTE (1)		1	6	12	18	24	91
	DRIVE CHAIN SLIDER			I, L	Every 500 km (300 mi) or every 3 months: I, L				91
	BRAKE FLUID	NOTE (2)			I	I	I	I	92
	BRAKE PAD WEAR				I	I	I	I	30, 31
	BRAKE SYSTEM			I	I	I	I	I	97
	BRAKE LIGHT SWITCH					I		I	30, 31
*	HEADLIGHT AIM					I		I	106
	CLUTCH SYSTEM			I	I	I	I	I	—
	SIDE STAND					I		I	32
*	SUSPENSION					I		I	105
*	SPARK ARRESTER				C: Every 1,600 km (1,000 mi) or every 100 operating hours				102, 103
*	NUTS, BOLTS, FASTENERS			I		I		I	89
**	WHEELS/TYRES			I	I	I	I	I	—
**	STEERING HEAD BEARINGS			I		I		I	42, 104

COMPETITION INSPECTION

All items should be checked before each competition event. See your Honda dealer unless you are mechanically qualified and have the proper tools.

NOTE: Refer to the Maintenance Schedule (page 68) for regular service intervals.

No.	ITEMS	INSPECT FOR:	ACTION	REFER TO PAGE
1	All Pre-ride Inspection items	As listed		52 – 53
2	Engine oil	Contaminants	Change	36 – 37
3	Fuel line	Deterioration, damage or leakage	Replace	—
4	Valve clearance	Correct clearance	Adjust	—
5	Engine-idle speed	Correct idle speed	Adjust	86
6	Carburetor-choke	Proper operation	—	—
7	Decompression mechanism	Proper free play	Adjust	—
8	Clutch discs	Proper operation, see NOTE 1	Replace	—
9	Air cleaner	Contamination or tears	Clean or replace	76
10	Spark plug	Tightness, proper heat range, and high-tension terminal security	Tighten, replace or secure	84 – 85
11	Steering head	Free rotation of handlebar and steering stem nut tightness	Adjust or retighten	—

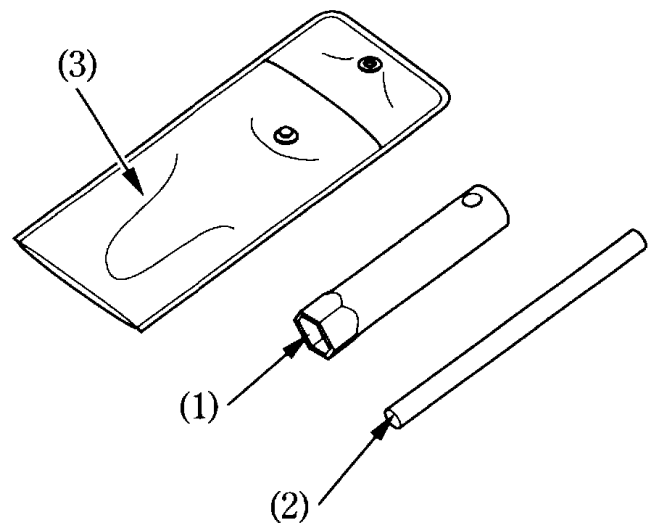
NOTE 1: Competition use may cause more rapid clutch disc wear.

Refer to the official Honda Shop Manual, or see your Honda dealer for clutch disassembly and wear inspection.

No.	ITEMS	INSPECT FOR:	ACTION	REFER TO PAGE
12	Front suspension	Smooth operation, no oil leaks, good boot condition, air pressure and oil volume	Replace or adjust	15 – 21, 102
13	Rear suspension	Smooth operation, no oil leaks and spring height	Replace or adjust	22 – 29, 103
14	Swingarm bearings	Smooth operation	Replace	—
15	Rear suspension linkage bushings	Wear	Replace	—
16	Brake pads	Wear beyond service limit	Replace	97
17	Drive chain: max. length/pins	638 mm (25.1 in) / 41	Replace	93 – 95
18	Sprockets	Wear and secure installation	Replace or tighten	93
19	Seat	Security	Tighten	—
20	Headlight	Proper beam aim	Adjust	—
21	Speedometer/tripmeter	Proper operation	Replace	13 – 14
22	Control cables	Smooth operation, kinks and correct routing	Lubricate or replace	—
23	Engine mounting bolts	Tightness	Tighten	—

TOOL KIT

The spark plug wrench (1) and its handle (2) are stored in the tool bag (3).

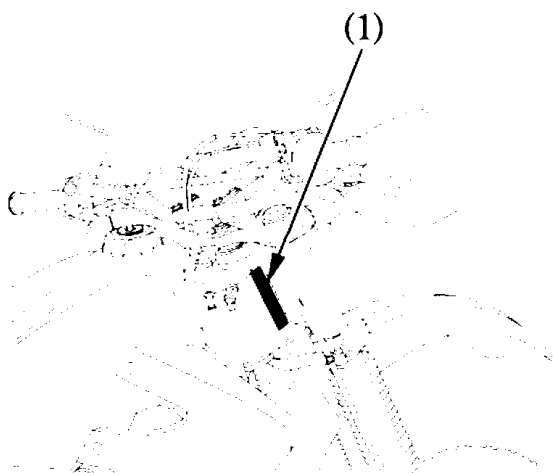


- (1) Spark plug wrench
- (2) Handle
- (3) Tool bag

SERIAL NUMBERS

The frame and engine serial numbers are required when registering your motorcycle. They may also be required by your dealer when ordering replacement parts. Record the numbers here for your reference.

FRAME NO. _____

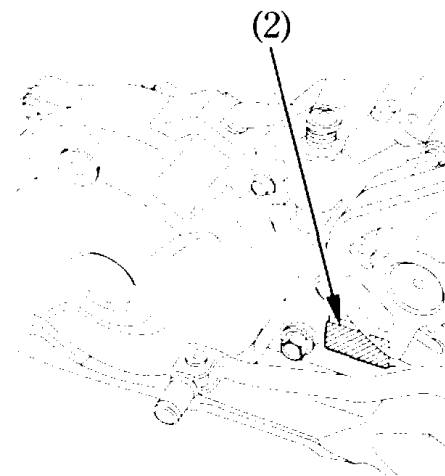


(1) Frame number

The frame number (1) is stamped on the right side of the steering head.

The engine number (2) is stamped on the left side of the crankcase.

ENGINE NO. _____



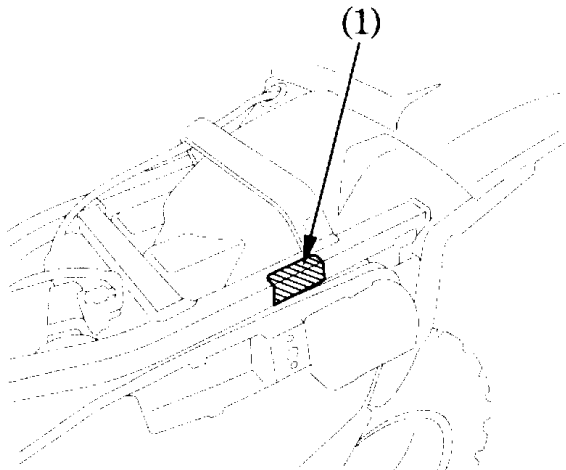
(2) Engine number

COLOUR LABEL

The colour label (1) is attached to the frame behind the left side cover (page 51). It is helpful when ordering replacement parts. Record the colour and code here for your reference.

COLOUR _____

CODE _____



(1) Colour label

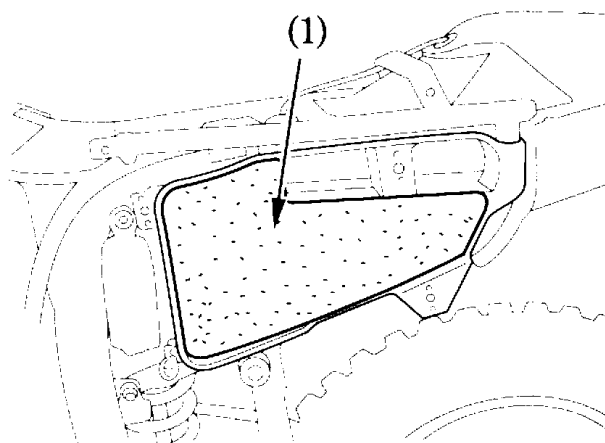
AIR CLEANER

Refer to the Safety Precautions on page 67 .

The air cleaner should be serviced at regular intervals (page 69). Service more frequently when riding in unusually wet or dusty areas.

1. Remove the left side cover (page 51).
2. Remove the air cleaner (1).
3. Wash the air cleaner in clean, nonflammable or high flash point solvent and let it dry thoroughly.

Never use petrol or low flash point solvents for cleaning the air cleaner. A fire or explosion could result.



(1) Air cleaner

-
4. Soak the air cleaner in gear oil (SAE 80—90) until saturated, then squeeze out the excess oil.
 5. Install the air cleaner and install the left side cover.

ENGINE OIL

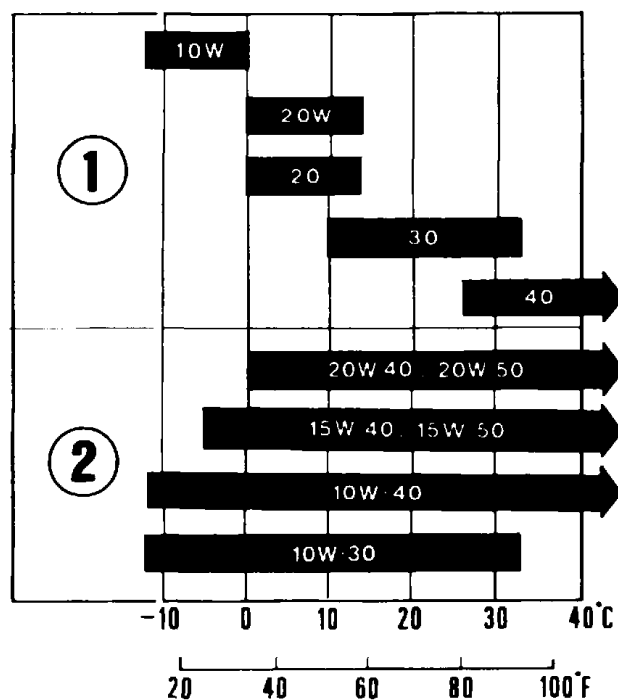
Refer to the Safety Precautions on page 67 .

Engine Oil

Good engine oil has many desirable qualities. Use only high detergent, quality motor oil certified on the container to meet or exceed requirements for API Service Classification SE, SF or SG.

Viscosity:

Viscosity grade of engine oil should be based on average atmospheric temperature in your riding area. The following provides a guide to the selection of the proper grade or viscosity of oil to be used at various atmospheric temperatures.



(1) Single grade

(2) Multi grade

Engine Oil

Engine oil quality is the chief factor affecting engine service life. Change the engine oil as specified in the maintenance schedule (page 69).

When running in very dusty conditions, oil changes should be performed more frequently than specified in the maintenance schedule.

Please dispose of used engine oil in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local recycling center or service station for reclamation. Do not throw it in the trash or pour it on the ground or down a drain.

Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is still advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil.

Changing the oil requires a torque wrench. If you do not have it and the necessary skill, we recommend that you have your Honda dealer perform this service.

If a torque wrench is not used for this installation, see your Honda dealer as soon as possible to verify proper assembly.

Change the engine oil with the engine at normal operating temperature and the motorcycle on its side stand to assure complete and rapid draining.

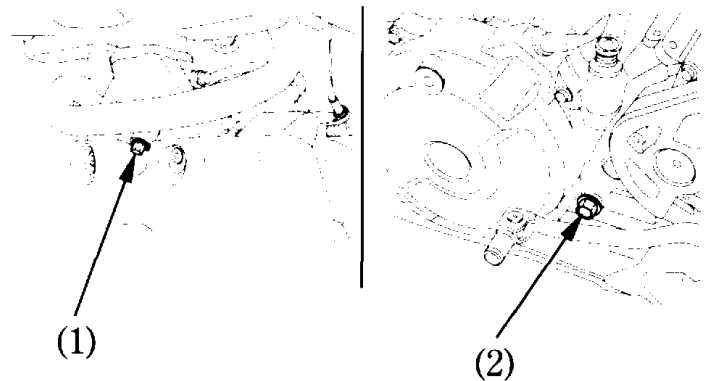
1. Start the engine and let it idle for a few minutes.
2. Stop the engine, place an oil drain pan under the crankcase. Remove the oil filler cap/dipstick, the drain bolt (1) on the down tube and drain bolt (2) on the left crankcase.
3. After the oil has drained, make sure the sealing washers on the drain plugs are in good condition.
4. Install the drain bolts to the specified torque.

Crankcase drain bolt torque:

25 N·m (2.5 kgf·m , 18 lbf·ft)

Frame drain bolt torque:

26 N·m (2.7 kgf·m , 20 lbf·ft)



(1) Drain bolt (down tube)

(2) Drain bolt (left crankcase)

To fill the oil tank to the upper level, oil should be added in two steps.

5. With the motorcycle upright on firm level ground.
6. Fill the oil tank with the specified oil (See page 78) up to the upper level mark and install the oil filler cap/dipstick.
7. Start the engine and let it idle for 5 minutes. During idling, support the motorcycle in an upright position on a firm, level surface to assure an accurate oil level reading. Stop the engine.
8. Immediately remove the oil filler cap/dipstick and add the specified oil up to the upper level mark.

NOTICE

Running the engine with insufficient oil can cause serious engine damage.

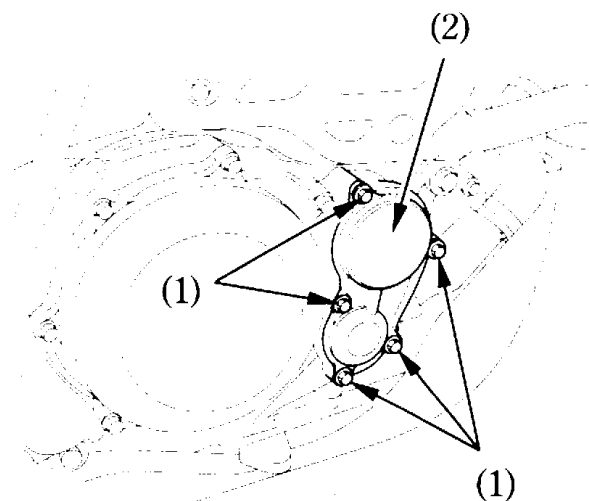
9. Reinstall the oil filler cap/dipstick. Check for oil leaks.

Engine Oil Filter

Change the oil filter after draining the engine oil.

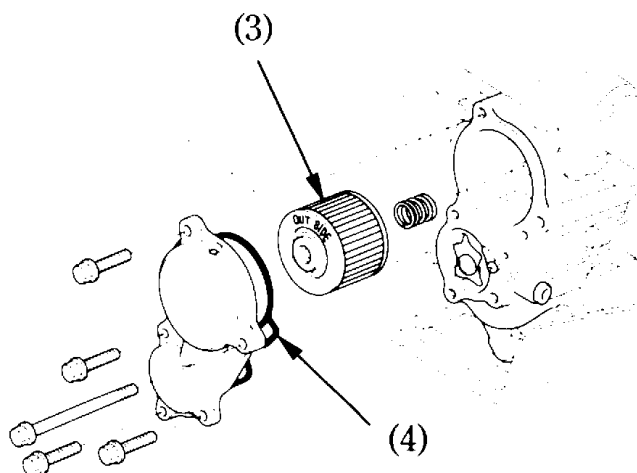
1. Remove the oil filter bolts (1) and oil filter cover (2).
2. Remove the oil filter (3) from the cover.

3. Check that the oil filter cover O-ring (4) is in good condition and then install the new oil filter. Use the Honda oil filter or an equivalent filter specified for your model. Other filters not specified for your model may not filter impurities properly.



(1) Oil filter bolts

(2) Oil filter cover



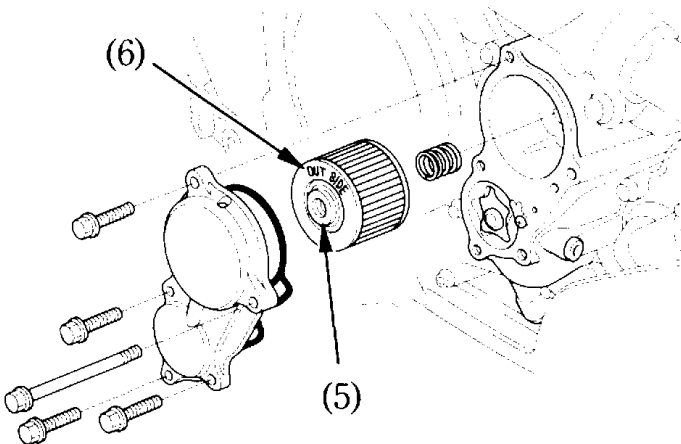
(3) Oil filter element

(4) O-ring

4. Install the filter with the rubber seal (5) facing out, away from the engine. You will see "OUT-SIDE" mark (6) on the filter body, near the seal.

NOTICE

Improper installation of the oil filter can cause serious engine damage.



- (5) Rubber seal
(6) OUT-SIDE mark

5. Reinstall the oil filter cover, making sure the bolts are tightened securely.

Oil Filter Bolt Torque:

12 N·m (1.2 kgf·m , 9 lbf·ft)

6. Perform steps 5 – 9 of Engine Oil Change.

Engine oil after draining and oil filter change:

1.6 l (1.7 US qt , 1.4 Imp qt)

SPARK PLUG

Refer to the Safety Precautions on page 67 .

Recommended plugs:

Standard:

BKR7E-11 (NGK) or
K22PR-U11 (DENSO)

For extended high speed riding:

BKR8E-11 (NGK) or
K24PR-U11 (DENSO)

For most riding conditions this spark plug heat range number is satisfactory. However, if the motorcycle is going to be operated for extended periods at high speeds or near maximum power in hot climates, the spark plug should be changed to a colder heat range (a higher number).

NOTICE

Never use a spark plug with an improper heat range. Severe engine damage could result.

1. Clean any dirt from around the spark plug base.
2. Disconnect the spark plug cap and remove the spark plug.

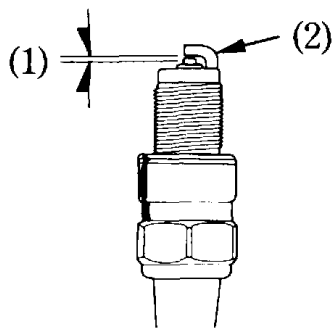
3. Visually inspect the spark plug electrodes for wear. The center electrode should have square edges and the side electrode should not be eroded.

Discard the spark plug if there is apparent wear or if the insulator is cracked or chipped.

4. Check the spark plug gap (1) using a wire-type feeler gauge. If adjustment is necessary, bend the side electrode (2) carefully.

The gap should be:

1.00 – 1.10 mm (0.039 – 0.043 in)



(1) Spark plug gap (2) Side electrode

5. Make sure the plug washer is in good condition.

6. With the plug washer attached, thread the spark plug in by hand to prevent cross-threading.

7. Tighten the spark plug:

- If the old plug is good:
1/8 turn after it seats.
- If installing a new plug, tighten it twice to prevent loosening:
 - a) First, tighten the plug:
NGK: 3/4 turn after it seats.
DENSO: 1/2 turn after it seats.
 - b) Then loosen the plug.
 - c) Next, tighten the plug again:
1/8 turn after it seats.

NOTICE

Improperly tightened spark plugs can damage the engine. Too loose, you can burn a piston. Too tight, you can damage the threads.

8. Reinstall the spark plug cap.

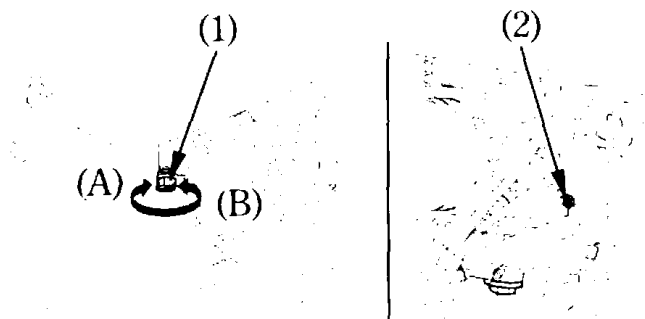
IDLE SPEED

Refer to the Safety Precautions on page 67 .

Idle Speed:

The engine must be at normal operating temperature for accurate idle speed adjustment. 10 minutes of stop-and-go riding is sufficient.

Do not attempt to compensate for faults in other systems by adjusting idle speed. See your Honda dealer for regularly scheduled carburetor adjustments.



- | | |
|-------------------------|------------------|
| (1) Throttle stop screw | (A) Increase rpm |
| (2) Pilot screw | (B) Decrease rpm |

1. Warm up the engine and hold the motorcycle upright. Shift to neutral.
2. Connect a tachometer to the engine.
3. Adjust idle speed with the throttle stop screw (1).

Idle speed (In neutral):

$1,400 \pm 100 \text{ min}^{-1} (\text{rpm})$

Idle Mixture:

1. Adjust the fuel mixture by turning the pilot screw (2) clockwise until you hear the engine miss or decrease in speed, then counterclockwise until the engine again misses or decreases in speed. Set the pilot screw exactly between these two extreme positions.

From a fully closed position, the correct setting (between extremes of rich and lean) will be approximately:

$1 \frac{3}{4}$ turns

2. If the idle speed changes after adjusting fuel mixture, readjust the idle speed by turning the throttle stop screw.

THROTTLE OPERATION

Refer to the Safety Precautions on page 67 .

Cable Inspection:

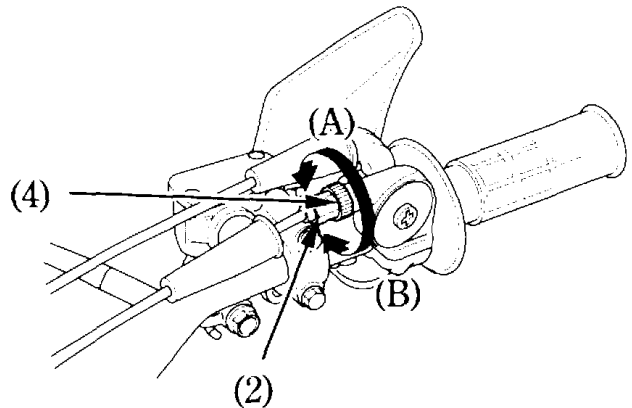
1. Check for smooth rotation of the throttle grip from the fully open to the fully closed in all steering positions.
2. Inspect the condition of the throttle cables from the throttle grip down to the carburetor. If the cables are kinked, chafed or improperly routed, they should be replaced and/or rerouted.
3. Check the cables for tension or stress at all steering position. Lubricate the throttle cables with a commercially available cable lubricant to prevent premature wear and corrosion.

Free Play Adjustment:

Measure the throttle grip freeplay at the throttle grip flange.

The standard freeplay should be approximately:

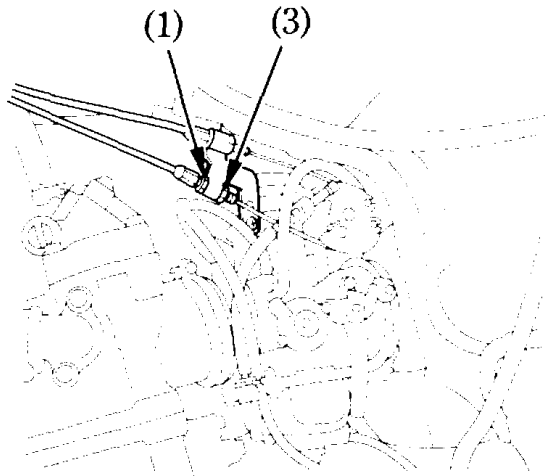
2.0 – 6.0 mm (0.08 – 0.24 in)



(2) Adjuster
(4) Lock nut

(A) Decrease free play
(B) Increase free play

Major free play adjustments, such as after replacing the throttle cables or removing the carburetor, are made with the lower adjuster (1). Minor free play adjustments are made with the upper adjuster (2). To adjust free play, loosen the lock nut (3) or (4), and turn the adjuster (1) or (2). Tighten the lock nut after adjustment.



(1) Lower adjuster

(3) Lower lock nut

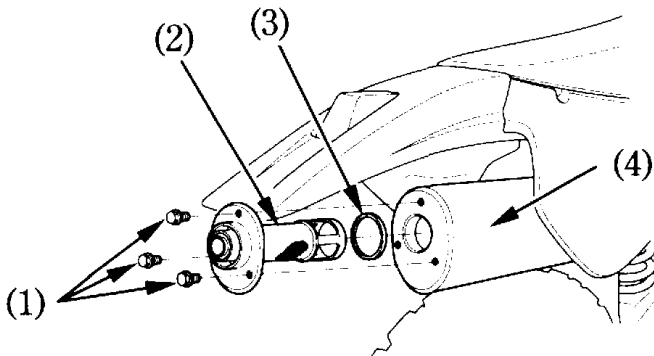
SPARK ARRESTER

Refer to the Safety Precautions on page 67 .

The exhaust system spark arrester must be purged of accumulated carbon periodically (see Maintenance Schedule for servicing period, page 70).

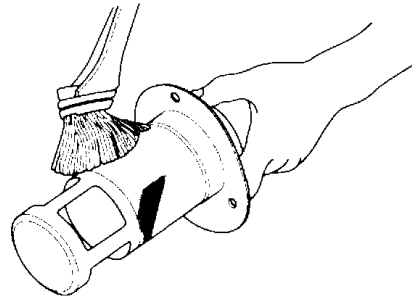
The exhaust system becomes very hot during operation and remains hot for a period of time after stopping the engine. Allow the exhaust system to cool before performing this operation.

1. Remove the three bolts (1), the spark arrester (2), and the gasket (3) from the muffler (4).
2. Use a brush to remove carbon deposits from the spark arrester screen. Be careful to avoid damaging the spark arrester screen. The spark arrester must be free of breaks and holes. Replace, if necessary. Check the gasket. Replace, if necessary.
3. Install the spark arrester and the gasket in the muffler and tighten the three bolts securely.



(1) Bolts
(2) Spark arrester

(3) Gasket
(4) Muffler



COOLANT

Refer to the Safety Precautions on page 67 .

Coolant Replacement

Coolant should be replaced by a Honda dealer, unless the owner has proper tools and service data and is mechanically qualified. Refer to an official Honda Shop Manual.

Always add coolant to the reserve tank. Do not attempt to add coolant by removing the radiator cap.

WARNING

Removing the radiator cap while the engine is hot can cause the coolant to spray out, seriously scalding you.

Always let the engine and radiator cool down before removing the radiator cap.

DRIVE CHAIN

Refer to the Safety Precautions on page 67 .

The service life of the drive chain is dependent upon proper lubrication and adjustment. Poor maintenance can cause premature wear or damage to the drive chain and sprockets.

The drive chain should be checked and lubricated as part of the Pre-ride Inspection (page 52). Under severe usage, or when the motorcycle is ridden in unusually dusty or muddy areas, more frequent maintenance will be necessary.

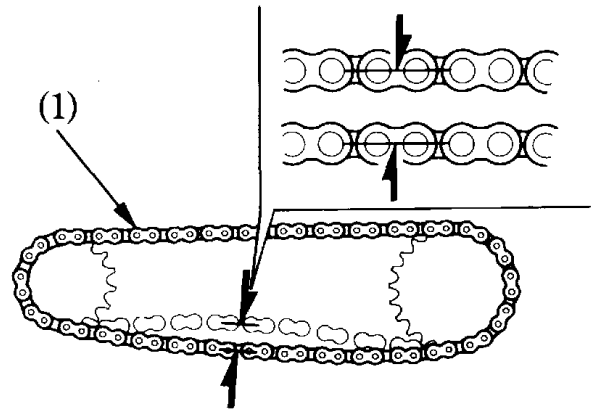
Inspection:

1. Turn the engine off, raise the rear wheel off the ground by placing a support under the engine, and shift the transmission into neutral.
2. Check slack in the lower drive chain run midway between the sprockets.
Drive chain slack should be adjusted to allow the following vertical movement by hand:
20 – 30 mm (0.8 – 1.2 in)

3. Roll the motorcycle forward. Stop. Check the drive chain slack. Repeat this procedure several times. Drive chain slack should remain constant. If the chain is slack only in certain sections, some links are kinked and binding. Binding and kinking can frequently be eliminated by lubrication.

NOTICE

Excessive chain slack may allow the drive chain to damage the engine cases.



(1) Drive chain

4. Check the chain slipper (2), chain guide slider (3) and chain roller (4) for wear.

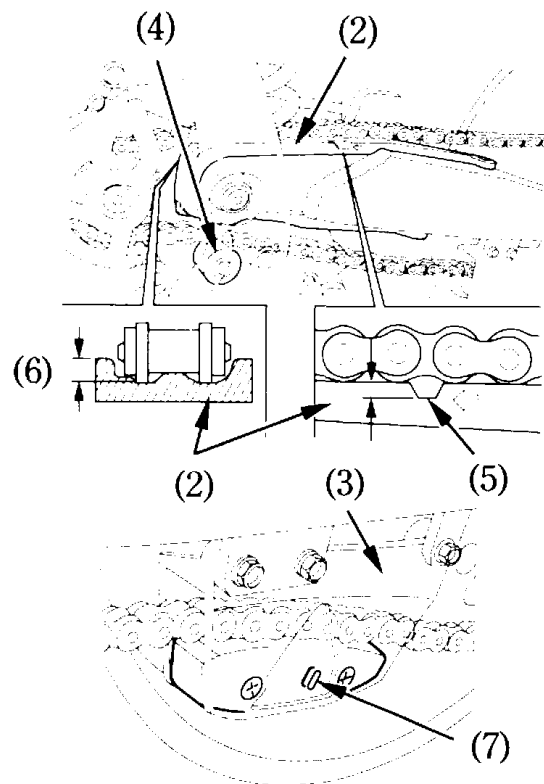
If the chain slipper is worn to the bottom of the cutout (5), or the depth (6) of the groove in the chain slipper exceeds the depth limit, the chain slipper must be replaced. Chain slipper depth limit:

8 mm (0.3 in)

Replace the chain guide slider if the chain is visible through the wear inspection window (7).

Replace the chain roller if it is smaller than:

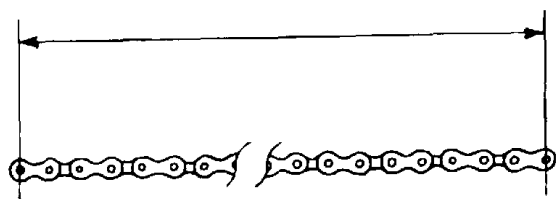
25 mm (1.0 in)



- | | |
|------------------------|-----------------------|
| (2) Chain slipper | (5) Cutout |
| (3) Chain guide slider | (6) Depth |
| (4) Chain roller | (7) Inspection window |

5. Measure a section of the drive chain to determine whether the chain is worn beyond its service limit. Measure the distance between a span of pins from pin center to pin center. If the distance exceeds the service limit, the chain is worn out and should be replaced.

New chain: 635 mm (25.0 in)
Service limit: 638 mm (25.1 in)



Span of pins measured: 41

This motorcycle has a staked master link drive chain which requires a special tool for cutting and staking. Do not use an ordinary master link with this chain. See your Honda dealer.

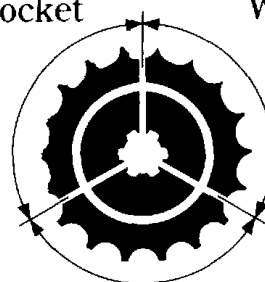
6. Inspect the sprocket teeth for possible wear or damage. Replace if necessary.

Damaged sprocket Teeth

Replace

Worn sprocket Teeth

Replace



Normal sprocket Teeth

GOOD

Standard sprocket sizes:

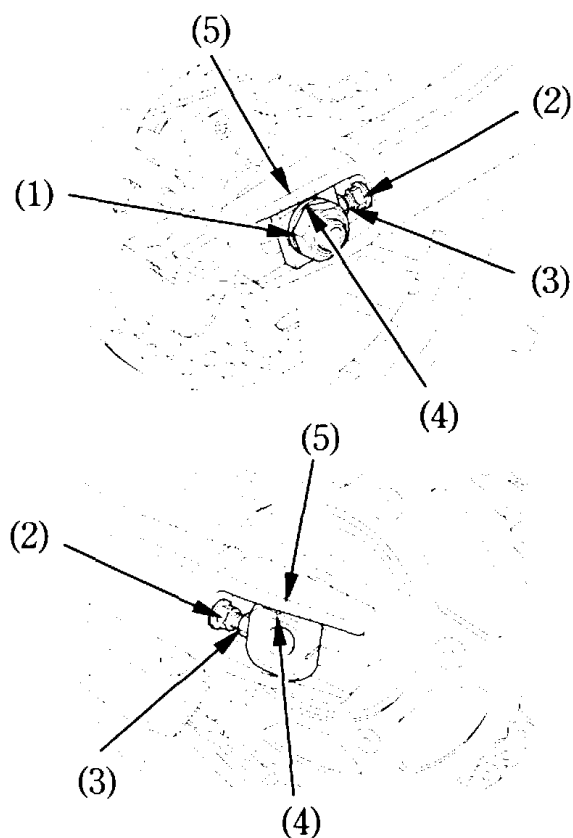
Drive sprocket (engine)	Driven sprocket (rear wheel)
15 teeth	41 teeth

If the drive chain or sprockets are excessively worn or damaged, they should be replaced. Never use a new chain with worn sprockets; rapid chain wear will result.

Adjustment:

If the drive chain requires adjustment, the procedure is as follows:

1. Loosen the rear axle nut (1).
2. Loosen the lock nuts (2) on both sides of the swingarm.
3. Turn the adjusting bolts (3) counterclockwise to decrease slack or clockwise to increase slack.
4. Align the index marks (4) with reference marks (5) on both sides of the swingarm.



- | | |
|---------------------|---------------------|
| (1) Rear axle nut | (4) Index marks |
| (2) Lock nuts | (5) Reference marks |
| (3) Adjusting bolts | |

If the drive chain slack is excessive when the rear axle is moved to the furthest limit of adjustment, the drive chain is worn and must be replaced.

5. Tighten the rear axle nut to:
88 N·m (9.0 kgf·m , 65 lbf·ft)

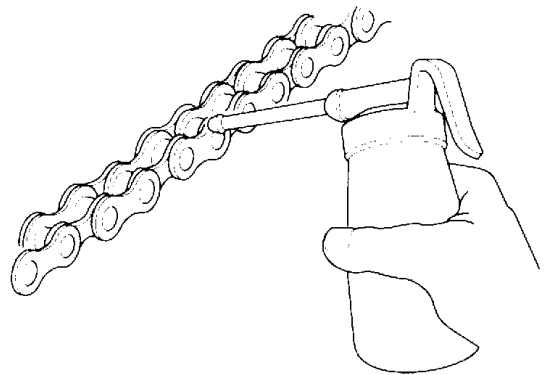
If a torque wrench is not used for this installation, see your Honda dealer as soon as possible to verify proper assembly.

6. Turn the adjusting bolts counterclockwise lightly until it touches the axle plate. Then tighten the lock nut by holding the adjusting bolt with a wrench.
7. Recheck drive chain slack.

Lubrication and Cleaning:

Lubricate every 500 km (300 miles) or sooner if chain appears dry.

The O-rings in this chain can be damaged by steam cleaning, high pressure washers, and certain solvents. Clean the side surfaces of the chain with a dry cloth. Do not brush the rubber O-rings. Brushing will damage them. Wipe dry and lubricate only with SAE 80 or 90 gear oil. Commercial chain lubricants may contain solvents which could damage the rubber O-rings.



Removal, Cleaning and Replacement:

Your motorcycle has an endless (reveted master link) type chain. It should only be removed or replaced by your Honda dealer.

When the drive chain becomes dirty, it should be removed and cleaned prior to lubrication.

1. Clean the side surfaces of the chain with a dry cloth. Do not brush the rubber O-rings. Brushing will damage them. Use of a solvent may also damage the O-rings.
2. Inspect the drive chain for possible wear or damage. Replace any chain that has damaged rollers, loose fitting links, or otherwise appears unserviceable.

Replacement chain:

D.I.D. 520VM or RK 520KZO

Never use petrol or low flash point solvents for cleaning the drive chain. A fire or explosion could result.

3. Inspect the sprocket teeth for possible wear or damage. Replace if necessary.
4. Lubricate the drive chain (page 95).

BRAKE PAD WEAR

Refer to the Safety Precautions on page 67 .

Brake pad wear depends upon the severity of usage, the type of riding, and riding area conditions. (Generally, the pads will wear faster on wet and dirty riding terrain.)

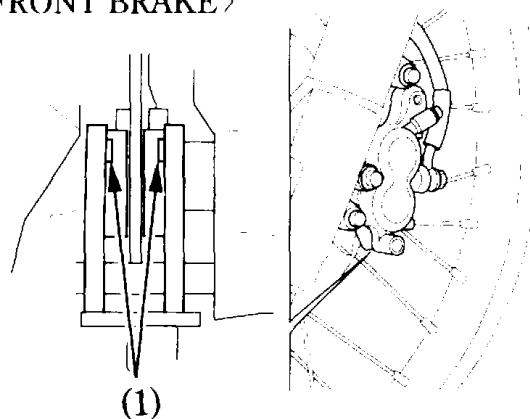
Inspect the pads at each regular maintenance interval (page 70).

Front/Rear Brake

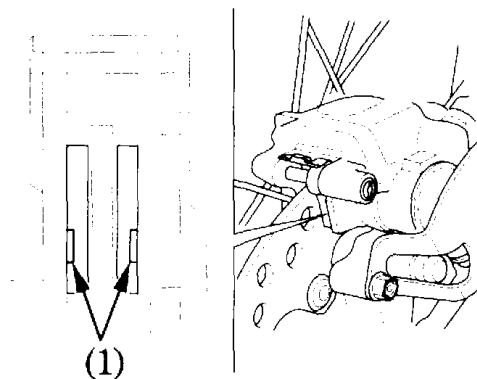
Check the cutout (1) in each pad.

If either pad is worn to the cutout, replace both pads as a set. See your Honda dealer for this service.

〈 FRONT BRAKE 〉



〈 REAR BRAKE 〉



(1) Cutout

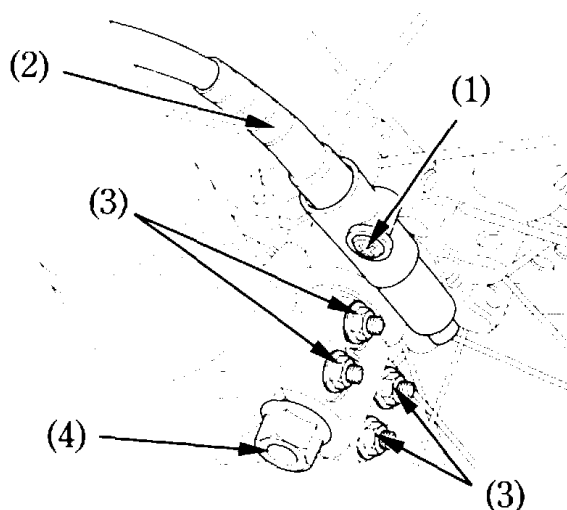
WHEEL REMOVAL

Refer to the Safety Precautions on page 67 .

Front Wheel Removal

1. Raise the front wheel off the ground by placing a support block under the engine.
2. Remove the speedometer cable set screw (1) and disconnect the speedometer cable (2).
3. Loosen the axle holder nuts (3).
4. Unscrew the front axle shaft (4).
Remove the wheel.

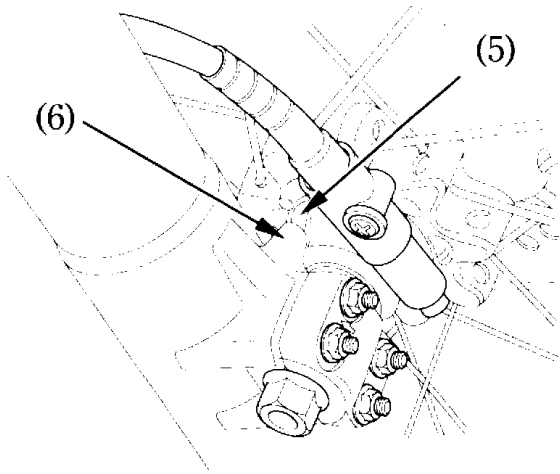
Do not depress the brake lever when the wheel is off the motorcycle. The caliper piston will be forced out of the cylinder with subsequent loss of brake fluid. If this occurs, servicing of the brake system will be necessary. See your Honda dealer for this service.



- | | |
|-----------------------|----------------------|
| (1) Screw | (3) Axle holder nuts |
| (2) Speedometer cable | (4) Front axle shaft |

Installation Notes:

- Reverse the removal procedure.
- Insert the front axle shaft through the wheel hub and left fork leg.
Make sure that the tang (5) on the speedometer gearbox is located behind the tang (6) on the right fork leg.
- Tighten the front axle shaft to the specified torque:
88 N·m (9.0 kgf·m , 65 lbf·ft)



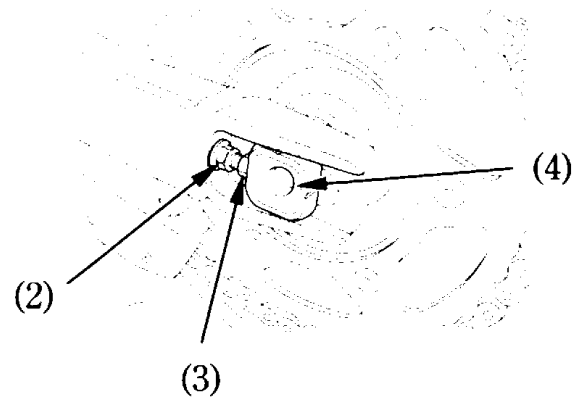
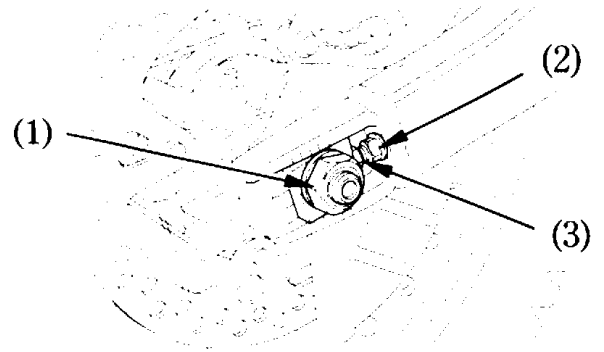
- (5) Tang (speedometer gearbox)
(6) Tang (right fork leg)

- Tighten the upper axle holder nuts to the specified torque first, then tighten the lower axle holder nuts to same torque.
Axle holder nut torque:
12 N·m (1.2 kgf·m , 9 lbf·ft)
- After installing the wheel, apply the brake several times and then check if the wheel rotates freely. Recheck the wheel if the brake drags or if the wheel does not rotate freely.

If a torque wrench was not used for installation, see your Honda dealer as soon as possible to verify proper assembly. Improper assembly may lead to loss of braking capacity.

Rear Wheel Removal

1. Raise the rear wheel off the ground by placing a support block under the engine.
2. Loosen the rear axle nut (1).
3. Loosen the drive chain adjuster lock nuts (2) and turn the adjusting bolts (3) so the rear wheel can be moved all the way forward for maximum drive chain slack.
4. Move the rear wheel forward. Derail the drive chain from the driven sprocket.
5. Remove the rear axle nut and pull out the rear axle shaft (4).
6. Remove the rear wheel.



(1) Rear axle nut
(2) Lock nut

(3) Adjusting bolt
(4) Rear axle shaft

Do not depress the brake pedal while the wheel is off the motorcycle. The caliper pistons will be forced out of the cylinders with subsequent loss of brake fluid. If this occurs, servicing of the brake system will be necessary. See your Honda dealer for this service.

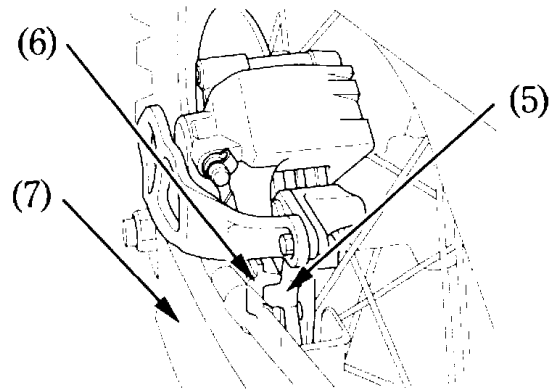
Installation Notes:

- To install the rear wheel, reverse the removal procedure.
- Make sure that the lug (5) on the brake caliper is located in the slot (6) in the swingarm (7).
- Tighten the rear axle nut to:
88 N·m (9.0 kgf·m , 65 lbf·ft)
- Adjust the drive chain (page 94).

When installing the wheel, carefully fit the brake disc between the brake pads to avoid damaging the pads.

After installing the wheel, apply the brake several times and then check if the wheel rotates freely. Recheck the wheel if the brake drags or if the wheel does not rotate freely.

If a torque wrench was not used for installation, see your Honda dealer as soon as possible to verify proper assembly. Improper assembly may lead to loss of braking capacity.



(5) Lug
(6) Slot

(7) Swingarm

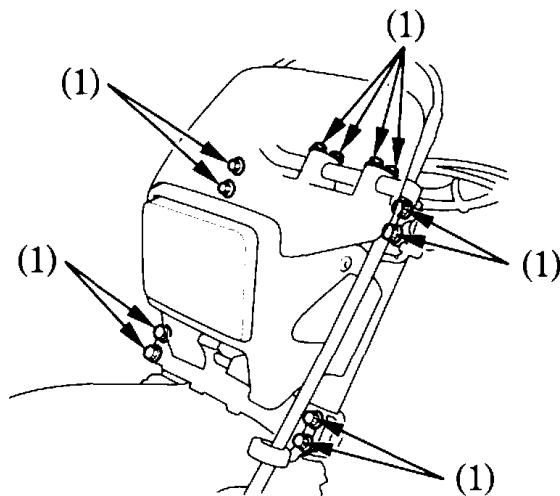
FRONT SUSPENSION

Refer to the Safety Precautions on page 67 .

Check the fork operation by locking the front brake and pumping the forks up and down several times. The suspension should function smoothly, with no oil leakage from the fork legs. Damaged, binding, or leaking fork should be repaired before the motorcycle is operated. Check security of all fork and handlebar mounting bolts (1).

Operating the motorcycle with loose, worn, or damaged steering or front suspension components may adversely affect vehicle handling and stability.

If any suspension components appear worn or damaged, consult your Honda dealer for further inspection. The suspension components are directly related to safety and your Honda dealer is qualified to determine whether or not replacement parts or repairs are needed.



(1) Mounting bolts

REAR SUSPENSION

Refer to the Safety Precautions on page 67 .

Check the rear suspension periodically by careful visual examination. Note the following items:

1. Swingarm bearings should be checked by pushing hard against the side of the rear wheel. Free play indicates worn bearings.
2. Check all suspension component attachment points for security of their respective fasteners.
3. Check for oil leaks in the shock absorber units.

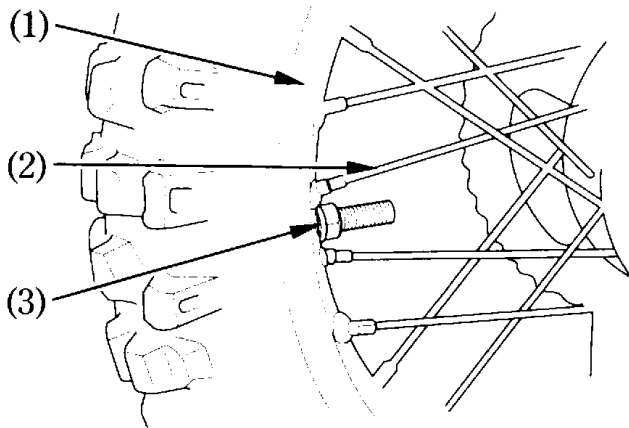
If any suspension components appear worn or damaged, consult your Honda dealer for further inspection. The suspension components are directly related to safety and your Honda dealer is qualified to determine whether or not replacement parts or repairs are needed.

WHEEL RIMS AND SPOKES

Refer to the Safety Precautions on page 67 .

1. Inspect the wheel rims (1) and spokes (2) for damage.
2. Tighten any loose spokes and rim locks (3).
3. Check wheel rim runout. If runout is noticeable, see your Honda dealer for inspection.

Maintenance of spoke tension and wheel trueness are critical to safe motorcycle operation. During the first 150 km (100 miles), spokes will loosen more rapidly due to initial seating of parts. Excessively loose spokes may result in high speed instability and possible loss of control.



(1) Wheel rim

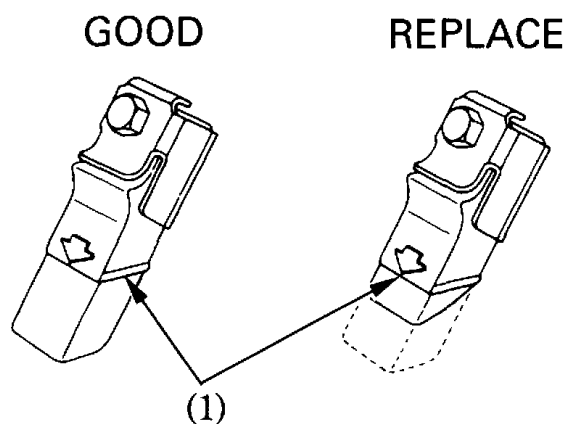
(2) Spoke

(3) Rim lock

SIDE STAND

Refer to the Safety Precautions on page 67 .

Check the rubber pad for deterioration and wear. Replace if wear extends to the wear line (See (1) in the picture). Check the side stand assembly for freedom of movement. If parts must be replaced, please contact your Honda dealer.



Replace if wear extends to any point of the wear line.

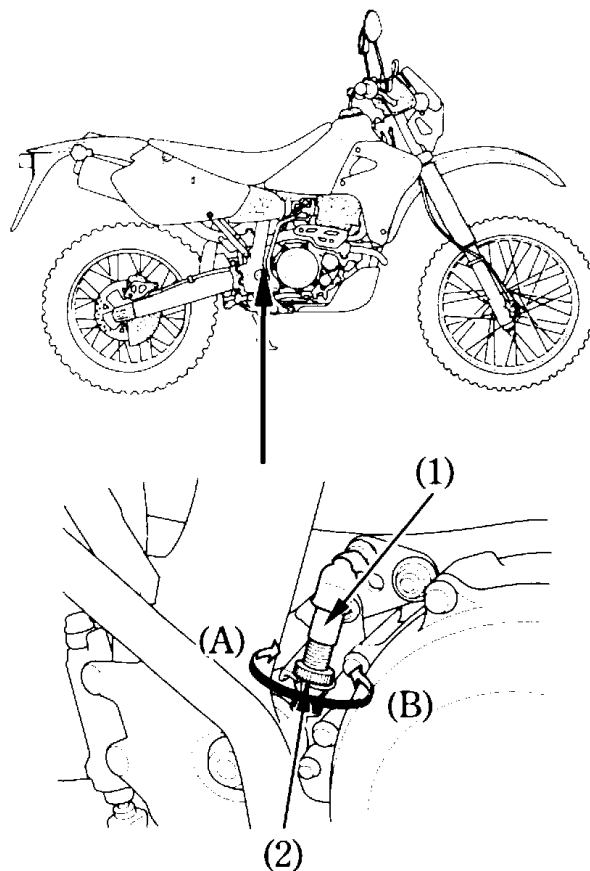
(1) Wear line

STOPLIGHT SWITCH ADJUSTMENT

Refer to the Safety Precautions on page 67 .

Check the operation of the stoplight switch (1) at the right side behind the engine from time to time.

Adjustment is done by turning the adjusting nut (2). Turn the nut in the direction (A) if the switch operates too late and in direction (B) if the switch operates too soon.



(1) Stoplight switch

(2) Adjusting nut

BULB REPLACEMENT

Refer to the Safety Precautions on page 67 .

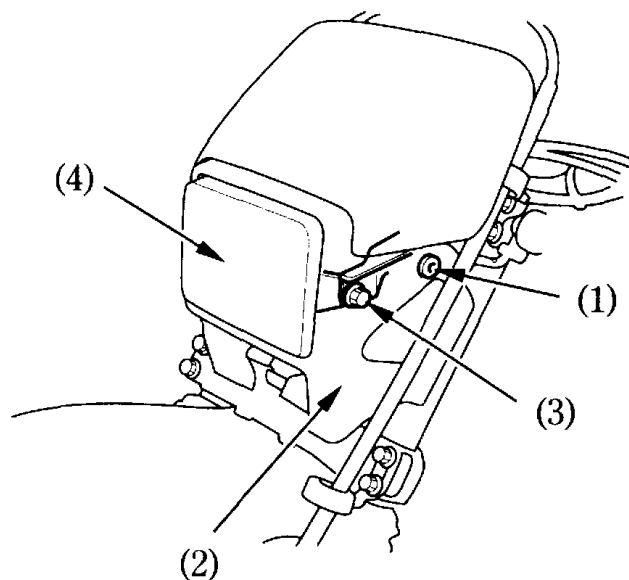
The light bulb becomes very hot while the light is ON, and remains hot for a while after it is turned OFF. Be sure to let it cool down before servicing.

The lighting equipment is not legal for highway use. Do not operate this motorcycle on public streets, roads or highways.

- Do not use bulbs other than those specified.
- After installing a new bulb, check that the light operates properly.

Headlight Bulb

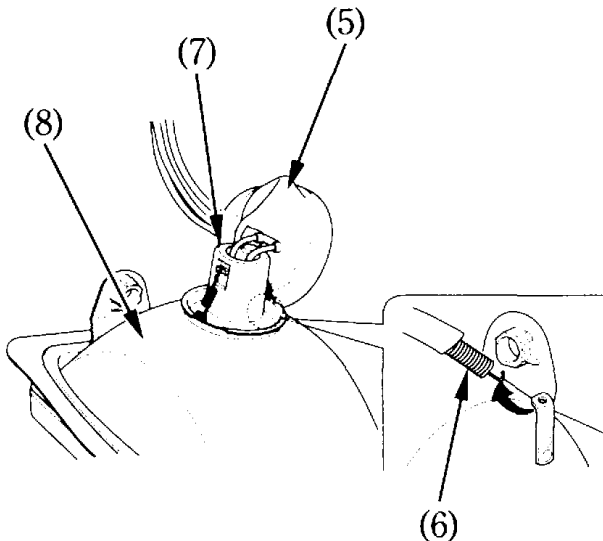
1. Remove the mounting bolts (1) and remove the headlight case (2).
2. Remove the two bolts (3) and remove the headlight (4).



(1) Mounting bolt
(2) Headlight case

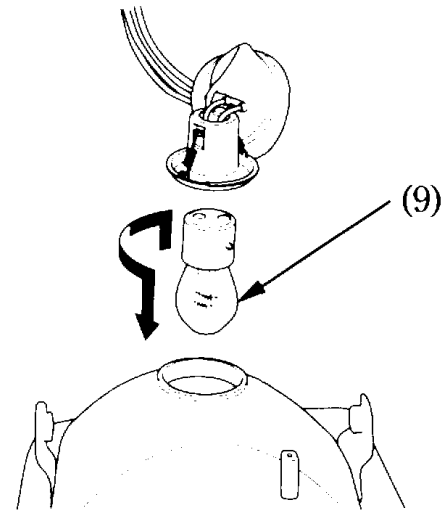
(3) Bolt
(4) Headlight

3. Pull back the rubber cover (5).
Remove the set spring (6) and disengage the socket (7) from the headlight (8).
Slightly press the headlight bulb (9) and turn it counterclockwise.



- (5) Rubber cover
(6) Set spring
(7) Socket
(8) Headlight

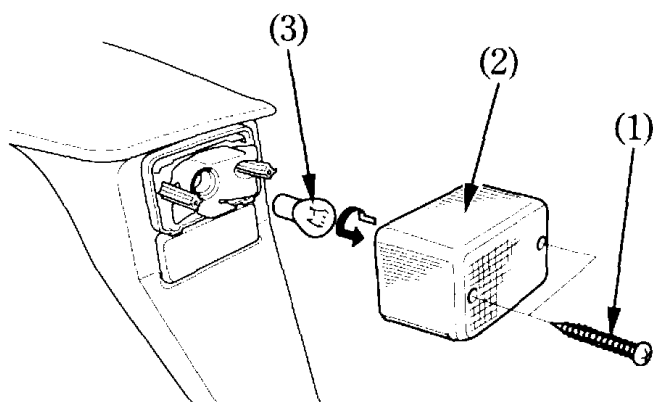
4. Install a new bulb in the reverse order of removal.
• When installing the bulb, align the tab on the socket with the groove in the headlight.



- (9) Headlight bulb

Stop/Tail Light Bulb

1. Remove the two screws (1).
2. Pull off the lens (2) and replace the bulb (3) with a new one.

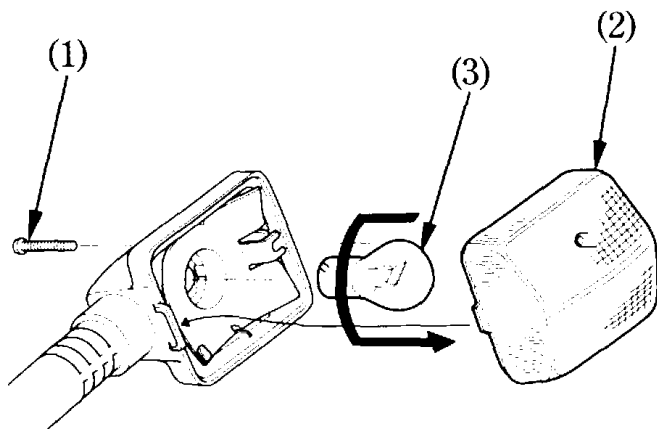


(1) Screws
(2) Lens

(3) Bulb

Front/Rear Turn Signal Bulb

1. Remove the screw (1) and remove the turn signal lens (2).
2. Slightly press the bulb (3) and turn it counterclockwise.
3. Install a new bulb in the reverse order of removal.



- (1) Screw (3) Bulb
(2) Turn signal lens

CLEANING

Clean your motorcycle regularly to protect the surface finishes and inspect for damage, wear, and oil or brake fluid leakage.

Avoid cleaning products that are not specifically designed for motorcycle or automobile surfaces.

They may contain harsh detergents or chemical solvents that could damage the metal, paint, and plastic on your motorcycle.

If your motorcycle is still warm from recent operation, give the engine and exhaust system time to cool off.

We recommend avoiding the use of high pressure water spray (typical in coin-operated car washes).

NOTICE

High pressure water (or air) can damage certain parts of the motorcycle.

High pressure washer spray can damage certain parts of your motorcycle. If you use a high pressure washer, avoid spraying the following areas:

- Wheel Hubs
- Muffler Outlet
- Under Seat
- Instruments
- Under Fuel Tank
- Drive Chain
- Carburetor
- Brake Master Cylinders

Washing the motorcycle

1. Rinse the motorcycle thoroughly with cool water to remove loose dirt.
2. Clean the motorcycle with a sponge or soft cloth using cool water.
Avoid directing water to muffler outlets and electrical parts.
3. Clean the plastic parts using a cloth or sponge dampened with a solution of mild detergent and water. Rub the soiled area gently rinsing it frequently with fresh water.
Take care to keep brake fluid or chemical solvents off the motorcycle.
They will damage the plastic and painted surfaces.
4. After cleaning, rinse the motorcycle thoroughly with plenty of clean water. Strong detergent residue can corrode alloy parts.
5. Dry the motorcycle, start the engine, and let it run for several minutes.

6. Test the brakes before riding the motorcycle. Several applications may be necessary to restore normal braking performance.
7. Lubricate the drive chain immediately after washing and drying the motorcycle.

Braking efficiency may be temporarily impaired immediately after washing the motorcycle.

Anticipate longer stopping distance to avoid a possible accident.

Finishing Touches

After washing your motorcycle, consider using a commercially-available spray cleaner/polish or quality liquid or paste wax to finish the job. Use only a non-abrasive polish or wax made specifically for motorcycles or automobiles. Apply the polish or wax according to the instructions on the container.

If a surface on your motorcycle is chipped or scratched, your Honda dealer has touch-up paint to match your motorcycle's colour. Be sure to use your motorcycle's colour code (page 75) when you buy touch-up paint.

STORAGE GUIDE

Extended storage, such as for winter, requires that you take certain steps to reduce the effects of deterioration from non-use of the motorcycle. In addition, necessary repairs should be made BEFORE storing the motorcycle; otherwise, these repairs may be forgotten by the time the motorcycle is removed from storage.

STORAGE

1. Change the engine oil and filter.
2. Make sure the cooling system is filled with a 50/50 % antifreeze solution.
3. Drain the fuel tank and carburetor into an approved petrol container.
Reinstall the fuel fill cap on the tank.

If storage will last more than one month, carburetor draining is very important, to assure proper performance after storage.

WARNING

Petrol is highly flammable and explosive. You can be burned or seriously injured when handling fuel.

- Stop the engine and keep heat, sparks, and flame away.
- Refuel only outdoors.
- Wipe up spills immediately.

4. To prevent rusting in the cylinder, perform the following:

- Remove the spark plug cap from the spark plug. Using tape or string, secure the cap to any convenient plastic body part so that it is positioned away from the spark plug.
- Remove the spark plug from the engine and store it in a safe place. Do not connect the spark plug to the spark plug cap.
- Pour a tablespoon (15–20 cm³) of clean engine oil into the cylinder and cover the spark plug hole with a piece of cloth.
- Crank the engine several times to distribute the oil.
- Reinstall the spark plug and spark plug cap.

5. Wash and dry the motorcycle. Wax all painted surfaces. Coat chrome with rustinhibiting oil.

6. Lubricate the drive chain (page 95).

7. Inflate the tyres to their recommended pressures. Place the motorcycle on blocks to raise both tyres off the ground.

8. Cover the motorcycle (don't use plastic or other coated materials) and store in an unheated area, free of dampness with a minimum of daily temperature variation. Do not store the motorcycle in direct sunlight.

REMOVAL FROM STORAGE

1. Uncover and clean the motorcycle.
2. Change the engine oil if more than 4 months have passed since the start of storage.
3. Fill the fuel tank with fresh petrol.
4. Perform all Pre-ride Inspection checks (page 52).
5. Test ride the motorcycle at low speeds in a safe riding area away from traffic.

SPECIFICATIONS

DIMENSIONS

Overall length	2,255 mm (88.8 in)
Overall width	825 mm (32.5 in)
Overall height	1,245 mm (49.0 in)
Wheelbase	1,490 mm (58.7 in)

WEIGHT

Dry weight	133 kg (293 lbs)
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CAPACITIES

Engine oil	
After draining:	1.56 ℓ (1.65 US qt , 1.37 Imp qt)
After draining and oil filter change:	1.6 ℓ (1.7 US qt , 1.4 Imp qt)
After disassembly:	2.0 ℓ (2.1 US qt , 1.8 Imp qt)
Fuel tank	10.0 ℓ (2.64 US gal , 2.20 Imp gal)
Fuel reserve tank	2.0 ℓ (0.53 US gal , 0.44 Imp gal)
Cooling system capacity	1.72 ℓ (1.82 US qt , 1.51 Imp qt)
Passenger capacity	Operator Only
Maximum weight capacity	100 kg (220 lbs)
Front fork oil capacity	637 cm ³ (21.5 US oz , 22.4 Imp oz)

ENGINE

Bore and stroke	100 × 82.6 mm (3.9 × 3.25 in)
Compression ratio	10.0 : 1
Displacement	649 cm ³ (39.6 cu-in)
Spark plug	BKR7E-11 (NGK) or
Standard	K22PR-U11 (DENSO)
For Extended high speed riding:	BKR8E-11 (NGK) or
	K24PR-U11 (DENSO)
Spark plug gap	1.00 – 1.10 mm (0.039 – 0.043 in)
Valve clearance	Intake:
	0.15 mm (0.006 in)
	Exhaust:
	0.20 mm (0.008 in)
Idle speed	1,400 ± 100 min ⁻¹ (rpm)

CHASSIS AND SUSPENSION

Caster	27°32'
Trail	108 mm (4.3 in)
Tyre size, front	3.00 – 21 51P
Tyre size, rear	4.50 – 18 70P
Tyre pressure, front	175 kPa (1.75 kgf/cm ² , 25 psi)
Tyre pressure, rear	125 kPa (1.25 kgf/cm ² , 18 psi)

POWER TRANSMISSION

Primary reduction	1.651
Final reduction	2.733
Gear ratio, 1st	3.083
2nd	2.125
3rd	1.666
4th	1.333
5th	1.115

ELECTRICAL

Alternator	0.074 kW/5,000 min ⁻¹ (rpm)
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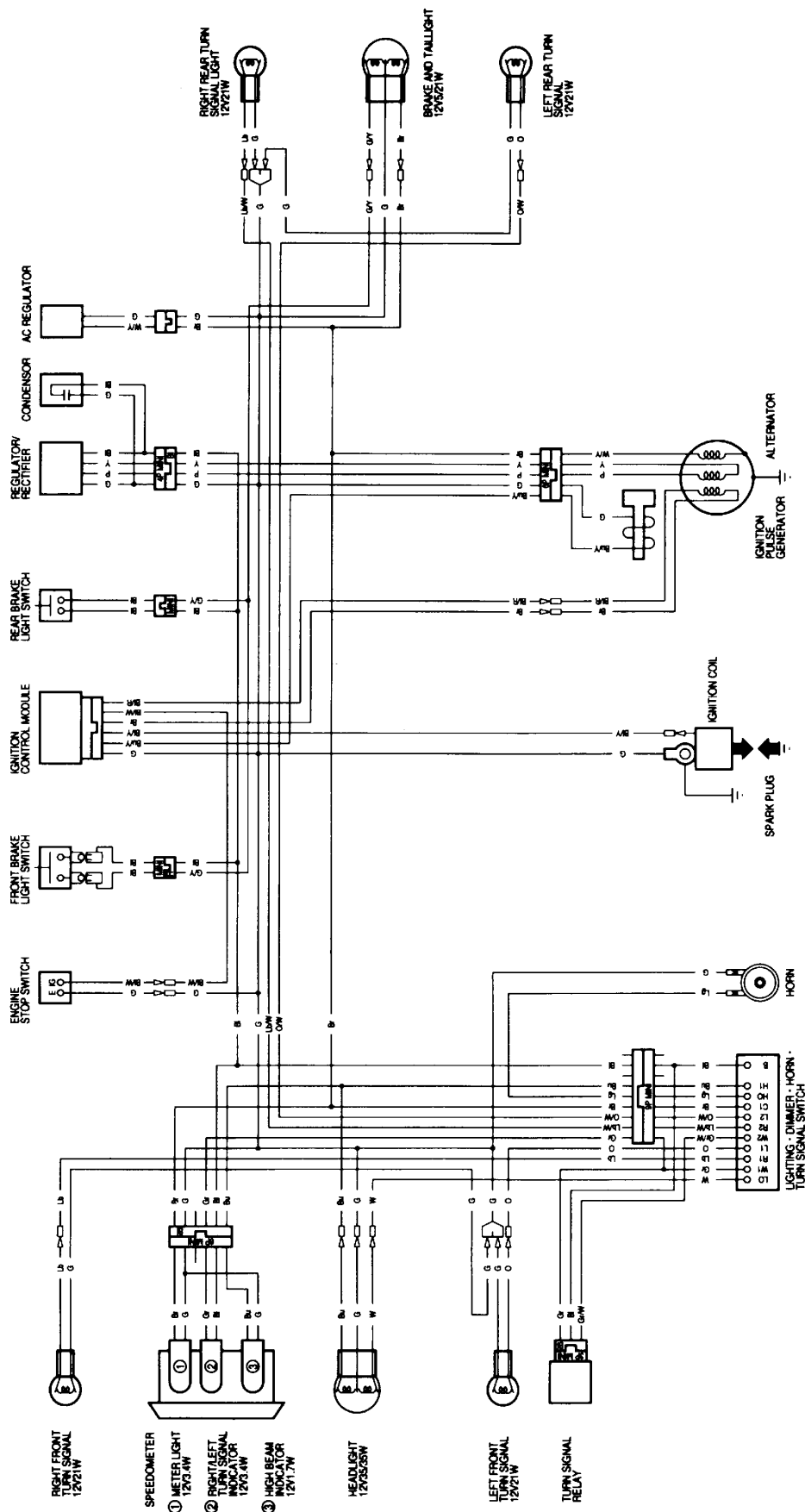
LIGHTS

Headlight	12V 35/35W
Stop/tail light	12V 21/5W
Speedometer light	12V 3.4W
High beam indicator	12V 1.7W
Turn signal indicator	12V 3.4W
Turn signal light	12V 21W

NOISE CONTROL SYSTEM (AUSTRALIA ONLY)

TAMPERING WITH THE NOISE CONTROL SYSTEM IS PROHIBITED: Owners are warned that the law may prohibit : (a) The removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; and (b) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

XR650R



B	BLACK	B	BROWN
Y	YELLOW	O	ORANGE
Bu	BLUE	lb	LIGHT BLUE
G	GREEN	L	LIGHT GREEN
A	RED	P	PINK
W	WHITE	Gr	GRAY

COLOR COMB : GROUND MARKING





0030Z-MBN-6500

ENGINE STOP SWITCH

	IG	E
OFF		
RUN		
COND COLOR		SW/WT G

LO				
C1	○	○	○	
H1	○	○		
	≡	(N)	≡	CONO

	L1	W1	R1	L2	W2	R2
TURN SIGNAL SWITCH						

HORN SWITCH		HO B		B
	FREE			5
	PUSH			
	COMP			

