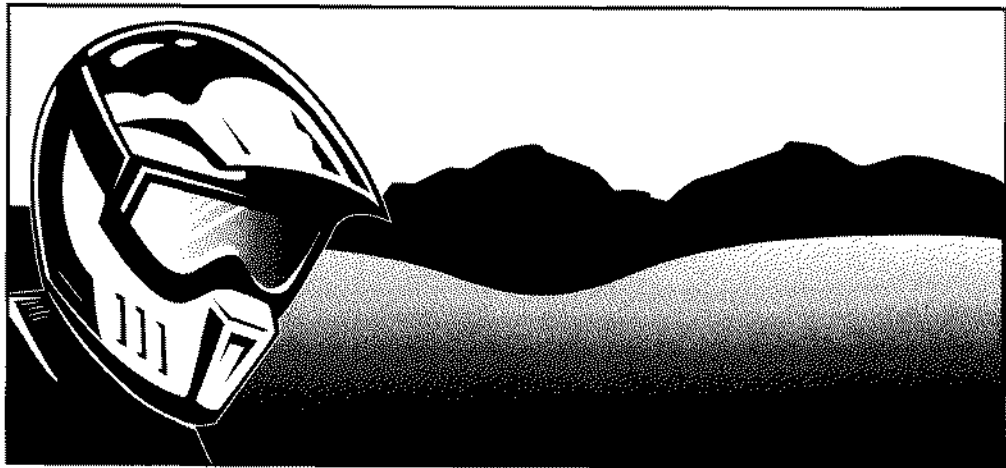




Manual del Propietario
Owner's Manual



CRF230F

Honda CRF230F

OWNER'S MANUAL

Moto Honda da Amazônia Ltda.

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.

- **FOR OFF-ROAD USE ONLY**

This motorcycle is designed and manufactured for off-road use only.

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

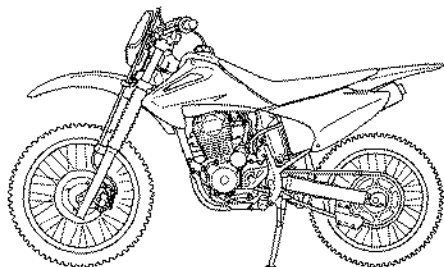
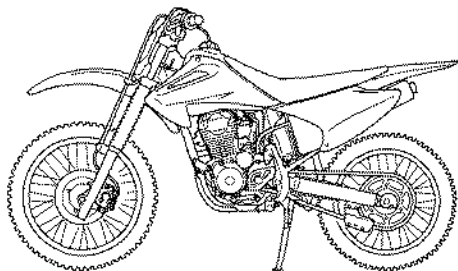
Pay special attention to the safety messages that appear throughout the manual. These messages are fully explained in the "A Few Words About Safety" section which appears before the Contents page.

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

Honda CRF230F

OWNER'S MANUAL

"U" TYPE



All information in this publication is based on the latest production information available at the time of approval for printing. Moto Honda da Amazônia Ltda. reserves the right to make changes at any time without notice and without incurring any obligation.

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WELCOME

Your new motorcycle presents you with an invitation to adventure and a challenge to master the machine. Your safety depends not only on your own alertness and familiarity with the motorcycle, but also the motorcycle's mechanical condition. A pre-ride inspection before every outing and regular maintenance are essential.

To help meet the challenges safely and enjoy the adventure fully, 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!

- Following codes in this manual indicate each country.

U	Australia (with headlight)
---	----------------------------

- 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 you can meet while riding.

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. 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.

Ride Off-Road Only

Your motorcycle is designed and manufactured for off-road use only. The tyres are not made for pavement, and the motorcycle does not have turn signals and other features required for use on public roads. If you need to cross a paved or public road, get off and walk your motorcycle across.

Take Time to Learn and Practice

Developing off-road riding skills is a gradual, step-by-step process. Start by practicing at low speeds in a safe area and slowly build your skills. Personal instruction from an experienced rider can also be valuable.

If you need assistance, ask your dealer about riding groups in your area.

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 accidents. 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

It's important to keep your motorcycle properly maintained and in safe riding condition. 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.

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.

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 jersey, 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 have a chin strap that can be tightened securely.

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 Riding Gear

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

- Sturdy off-road motorcycle boots to help protect your feet, ankles, and lower legs.
- Off-road motorcycle gloves to help protect your hands.
- Riding pants with knee and hip pads, a riding jersey with padded elbows, 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

The weight of added accessories will reduce the maximum cargo weight you can carry.

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:

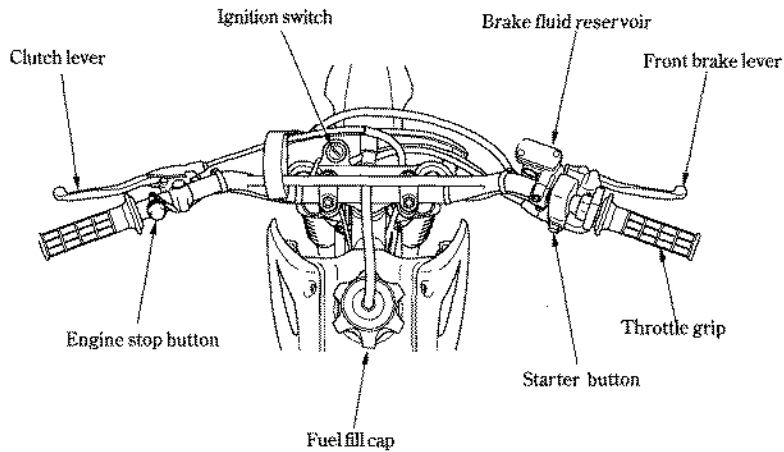
- Make sure the accessory does not reduce ground clearance and banking angle, limit suspension travel or steering travel, alter your riding position or interfere with operating any controls.

Modifications

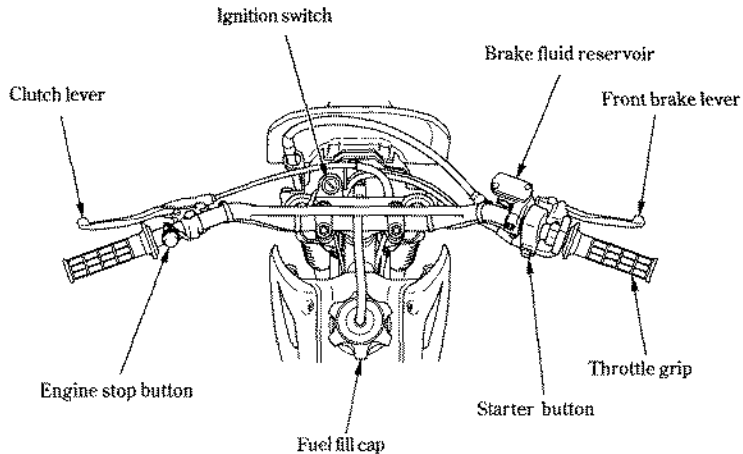
We strongly advise you not to remove any original equipment or modify your motorcycle in any way that would change its design or operation. Such changes could seriously impair your motorcycle's handling, stability and braking, making it unsafe to ride.

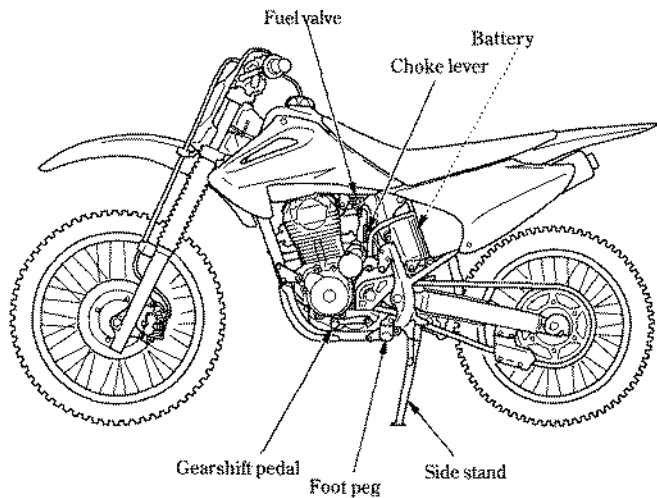
Removing or modifying your exhaust system (such as the spark arresters or mufflers) or other equipment can also make your motorcycle illegal.

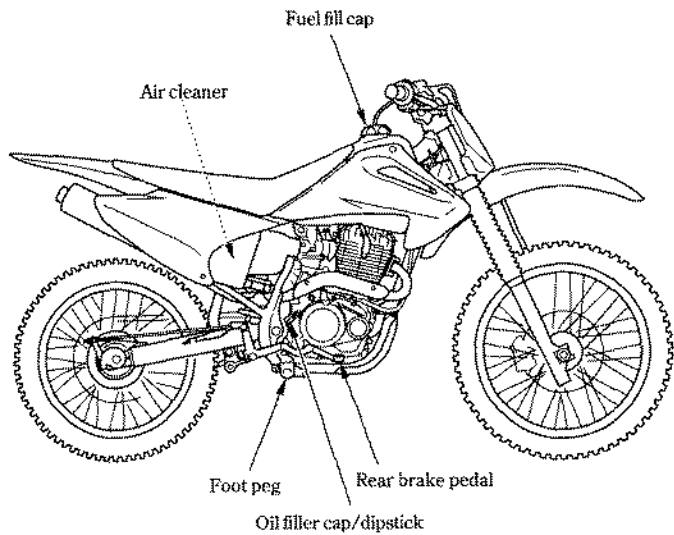
PARTS LOCATION



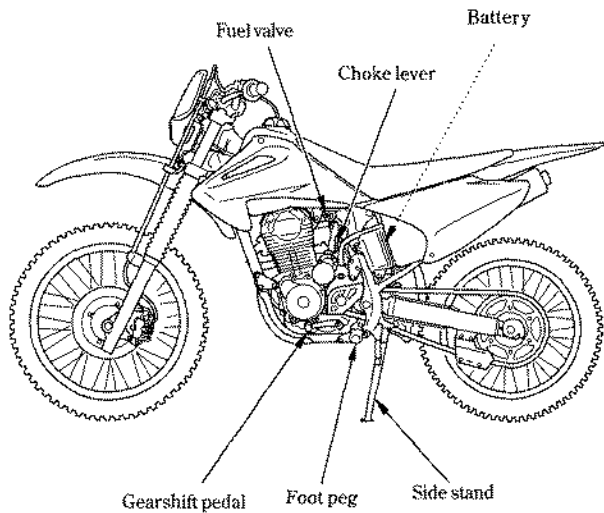
PARTS LOCATION (“U” TYPE)



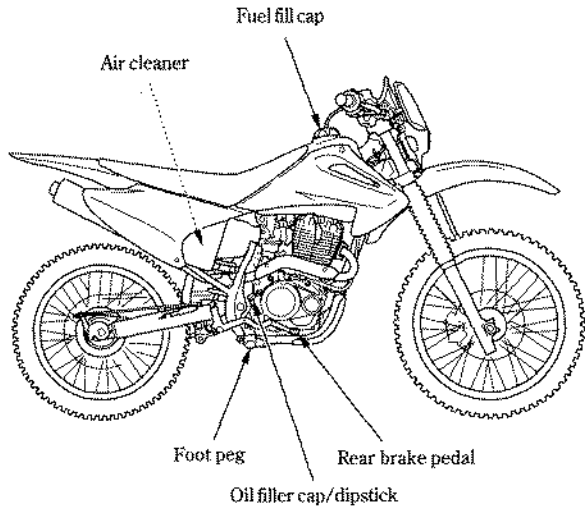




(“U” TYPE)



(“U” TYPE)



MAJOR COMPONENTS

(Information you need to operate this motorcycle)

BRAKES

Front Brake

This motorcycle has a hydraulic front disc brake. As the brake pads wear, 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 free travel becomes excessive and the brake pads are not worn beyond the recommended limit (page 77), there is probably air in the brake system and it must be bled. See your Honda dealer for this service.

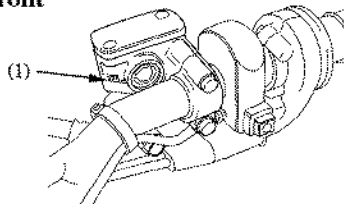
Brake Fluid Level:

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 80).

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

Front Brake Lever:

Never use adjusters other than those designed for this motorcycle. Install a new adjuster from the lever side with the lock nut under the head of the adjuster.

1. Pull back the rubber dust cover (2).
2. Loosen the lock nut (3).
3. To position the brake lever farther away from the handgrip, turn the adjuster (4) clockwise.

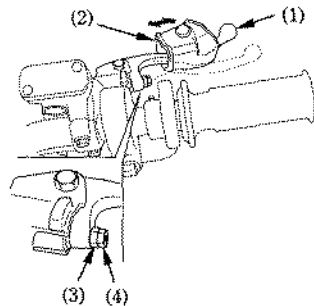
To position the brake lever closer to the handgrip, turn the adjuster counterclockwise.

4. Tighten the lock nut. Return the dust cover to its normal position.
5. Apply the brake, release it, then spin the wheel and check that it rotates freely.
6. Check freeplay by pulling in slowly on the front brake lever until the brake starts to engage.

Freeplay:

10 - 20 mm (0.4 - 0.8 in)

If brake lever freeplay is not within this range, see your Honda dealer.



- | | |
|-----------------------|--------------|
| (1) Front brake lever | (3) Lock nut |
| (2) Dust cover | (4) Adjuster |

Other Checks:

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

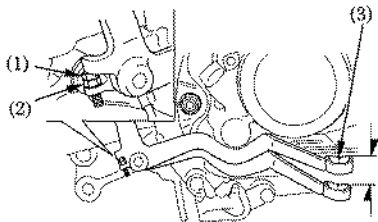
Rear Brake

Adjustment:

1. Place the motorcycle on its side stand.
2. The stopper bolt (1) is provided to allow adjustment of the pedal height.

To adjust the pedal height, loosen the lock nut (2) and turn the stopper bolt.

Tighten the lock nut.



- (1) Stopper bolt
(2) Lock nut

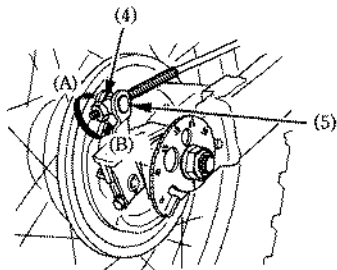
(3) Rear brake pedal

3. Measure the distance the rear brake pedal (3) moves before the brake starts to take hold.

Free play should be:

20 – 30 mm (0.8 – 1.2 in)

4. If adjustment is necessary, turn the rear brake adjusting nut (4).



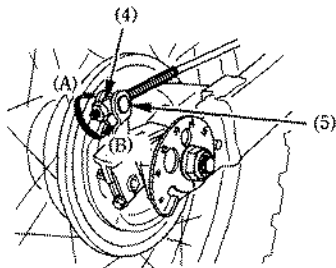
- (4) Adjusting nut
(5) Arm pin

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

Make sure the cut-out on the adjusting nut is seated on the brake arm pin (5) after making final free play adjustment.

If proper adjustment cannot be obtained by this method, see your Honda dealer.

5. Apply the brake several times and check for free wheel rotation after the brake pedal is released.



(4) Adjusting nut

(5) Arm pin

(A) Decrease free play

(B) Increase free play

Other Checks:

Make sure the brake rod, brake arm, spring and fasteners are in good condition.

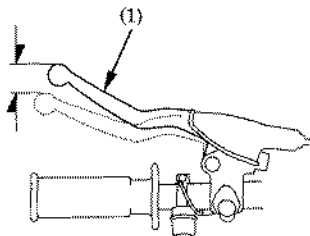
CLUTCH

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).

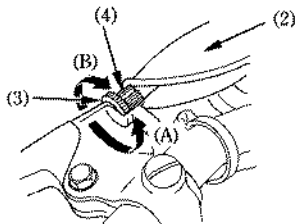
Normal clutch lever free play is:

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

(3) Lock nut

(4) Clutch cable adjuster

(A) Increase free play

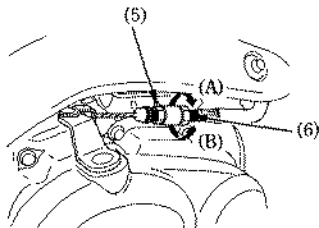
(B) Decrease free play

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 (5) and check the adjustment.
5. Start the engine, pull in the clutch lever and shift into 1st 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 | (A) Increase free play |
| (6) Adjusting nut | (B) Decrease free play |

FUEL

Fuel Valve

The three way fuel valve (1) is on the left 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.

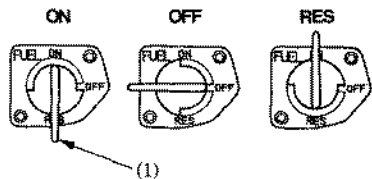
RES

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:

1.5 l (0.40 US gal, 0.33 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:

8.2 ℓ (2.17 US gal, 1.80 Imp gal)

To open the fuel fill cap (1), pull out the breather tube (2) from the steering stem nut (3). Then turn the fuel fill cap counterclockwise.

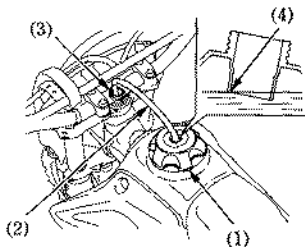
Do not overfill the tank. There should be no fuel in the filler neck (4).

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) Steering stem nut

(4) Filler neck

Use unleaded petrol with a research octane number of 98 or higher.

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.

ENGINE OIL

Engine Oil Level Check

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

The oil filler cap/dipstick (1) is at the rear of the right crankcase cover and contains a dipstick for measuring the oil level. Oil level must be maintained between the upper (2) and lower (3) level marks on the filler cap/dipstick (1).

1. Hold the motorcycle on upright firm level ground.
2. Start the engine and let it idle for a few minutes.
3. Stop the engine. After a few minutes, remove the oil filler cap/dipstick (1) and wipe it clean, then reinsert the dipstick without screwing it in.

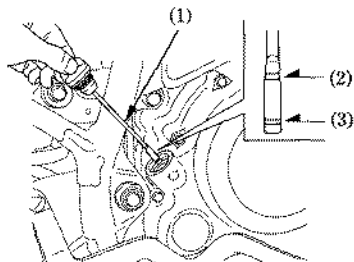
Remove the dipstick. The oil level should be between the upper (2) and lower (3) level marks on the dipstick.

4. If required, add the specified oil (see page 60) up to the upper level mark. Do not overfill.

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

NOTICE

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



(1) Filler cap/dipstick

(2) Upper level mark

(3) Lower level mark

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	100 kPa (1.0 kgf/cm ² , 15 psi)
Rear	100 kPa (1.0 kgf/cm ² , 15 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:

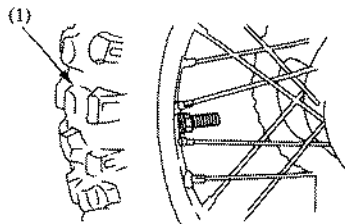
- Bumps or bulges in the side of the tyre or the tread. Replace the tyre if you find any bumps or bulges.
- Cuts, splits or cracks in the tyre. Replace the tyre if you can see fabric or cord.
- Excessive tread wear.

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 27.

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: 80/100-21

80/100-21 M/C

Rear: 100/100-18

100/100-18 M/C

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

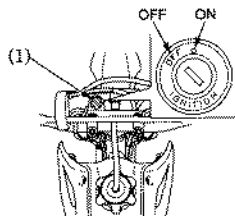
IGNITION SWITCH

The ignition switch (1) is located in front of handlebar.

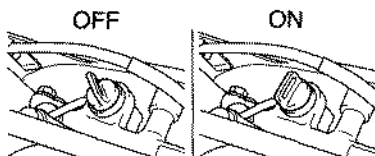
The ignition switch is used to prevent unauthorized use of the motorcycle.

Before riding, insert the key and turn it to the ON position.

After parking the motorcycle, remove the key.



(1) Ignition switch

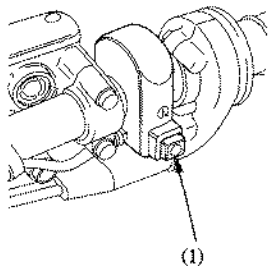


Key Position	Function	Key Removal
OFF	The engine cannot be operated.	Key can be removed.
ON	With the transmission in neutral, the engine can be started.	Key cannot be removed.

STARTER BUTTON

The starter button (1) is next to the throttle grip.

When the starter button is pressed, the starter motor cranks the engine. See page 38 for the starting procedure.

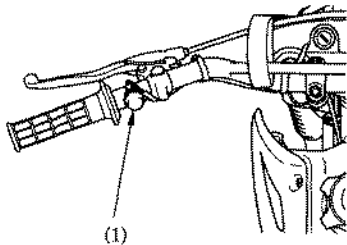


(1) Starter button

ENGINE STOP BUTTON

The engine stop button (1) is next to the left handlebar grip.

Push the button in and hold it in until the engine stops completely.



(1) Engine stop button

FEATURES

(Not required for operation)

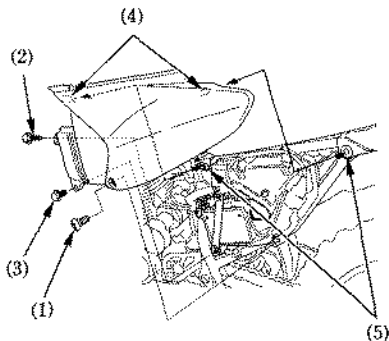
LEFT SIDE COVER

Removal:

1. Remove the screw (1), bolt A (2) and bolt B (3).
2. Pull both side cover prongs (4) out of the rubber grommets (5).

Installation:

1. Slide the top of the side cover under the bottom edge of the seat.
2. Align the side cover prongs with the rubber grommets. Press the side cover into position.
3. Install the securing screw and bolts and tighten them.



- (1) Screw
- (2) Bolt A
- (3) Bolt B
- (4) Prongs
- (5) Rubber grommets

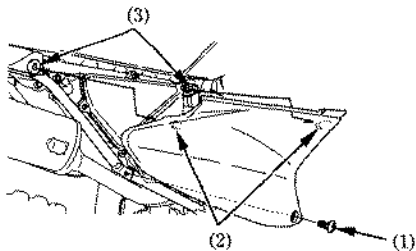
RIGHT SIDE COVER

Removal:

1. Remove the screw (1).
2. Pull both side cover prongs (2) out of the rubber grommets (3).

Installation:

1. Slide the top of the side cover under the bottom edge of the seat.
2. Align the side cover prongs with the rubber grommets. Press the side cover into position.
3. Install the securing screw and tighten it.



- (1) Screw
- (2) Prongs
- (3) Rubber grommets

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 25). Check for leaks.
2. Fuel level – fill fuel tank when necessary (page 21). Check for leaks.
3. Front and rear brakes – check operation; make sure there is no brake fluid leakage. Adjust free play if necessary (pages 15 – 18).
4. Tyres – check condition and pressure (pages 26 – 30).
5. Spokes and rim locks – check and tighten if necessary (page 75).
6. Drive chain – check condition and slack (page 69). Adjust and lubricate if necessary.
7. Chain slider – check slider wear (page 70).
8. Throttle – check for smooth opening and full closing in all steering positions. Adjust free play if necessary (pages 66 – 67).

9. Clutch – check operation, and adjust if necessary (pages 19 – 20).
10. Lights – check that headlight function properly. (only for “U” type).
11. Spark plug and high tension terminal – check for looseness.
12. Engine stop button – check for proper function (page 32).
13. 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 started with the transmission in gear by pulling in the clutch lever 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.

Do not use the electric starter for more than 5 seconds at a time. Release the starter button for approximately 10 seconds before pressing it again.

Preparation

Before starting, insert the key and turn the ignition switch ON.

Make sure that the transmission is in neutral. Turn the fuel valve ON.

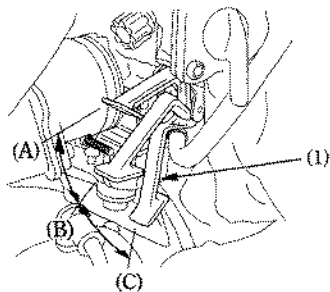
Starting Procedure

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. With the throttle closed, press the starter button.
3. 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.

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

High Air Temperature

35°C (95°F) or above

1. Do not use the choke.
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 will idle smoothly with the choke lever (1) pushed 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.

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). Open the throttle fully and press the starter button for 5 seconds while pushing the engine stop button. Release the engine stop button and follow the "High Air Temperature" Starting Procedure (page 39).

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

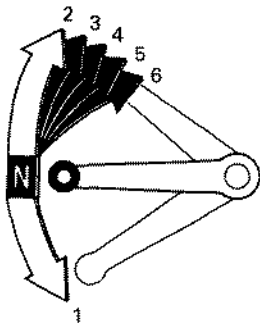
Review Motorcycle Safety (pages 1 – 8) before you ride.

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 48 and explanation for SIDE STAND on page 88).

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, 5th and 6th (top) gear.

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.

PARKING

1. After stopping the motorcycle, shift the transmission into neutral and turn the fuel valve OFF. Push the engine stop button in and hold it in until the engine stops completely.
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.

3. Turn the ignition switch OFF and remove the key.

ANTI-THEFT TIPS

1. Be sure the registration information for your motorcycle is accurate and current.
2. Park your motorcycle in a locked garage whenever possible.
3. Use an additional anti-theft device of good quality.
4. 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 which 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. Careful pre-ride inspections and good maintenance are especially important because your motorcycle is designed to be ridden over rough off-road terrain.

To help you properly care for your motorcycle, this section of the manual provides a Maintenance Schedule.

The service intervals in this schedule are based on average riding conditions.

More frequent service is needed if you subject your motorcycle to severe use (such as competition) or ride in unusually wet or dusty areas.

Frequent servicing of the air cleaner is especially important to help you avoid a possible costly engine repair.

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 35) 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 the 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 ↓ NOTE	INITIAL MAINT.	REGULAR MAINT. INTERVAL					REFER TO PAGE	
				km	150	1,000	2,000	3,000		4,000
				mi	100	600	1,200	1,800		2,400
				MONTH	1	6	12	18		24
*	FUEL LINE					I		I	-	
*	THROTTLE OPERATION					I		I	66	
	AIR CLEANER	NOTE (1)			C	C	C	C	56	
	CRANKCASE BREATHER				I	I	I	I	59	
	SPARK PLUG				I	I	I	I	63	
*	VALVE CLEARANCE			I	I	I	I	I	-	
	ENGINE OIL			R	R	R	R	R	60	
**	ENGINE OIL STRAINER SCREEN					C		C	-	
**	ENGINE OIL CENTRIFUGAL FILTER					C		C	-	
**	ENGINE IDLE SPEED			I	I	I	I	I	65	

ITEMS	FREQUENCY	WHICHEVER → COMES FIRST ↓ NOTE	MONTH	INITIAL MAINT.	REGULAR MAINT. INTERVAL					REFER TO PAGE
				km	150	1,000	2,000	3,000	4,000	
				mi	100	600	1,200	1,800	2,400	
				1	6	12	18	24		
	DRIVE CHAIN	NOTE (1)		I, L	Every 500 km (300 mi) or every 3 months: LL					69
	DRIVE CHAIN SLIDER				I	I	I	I		70
	BRAKE FLUID	NOTE (2)			I	I	I	I		15
	BRAKE SHOE/PAD WEAR				I	I	I	I		80, 81
	BRAKE SYSTEM			I	I	I	I	I		15, 80, 81
	CLUTCH SYSTEM			I	I	I	I	I		19
	SIDE STAND					I		I		88
*	SUSPENSION					I		I		86, 87
*	SPARK ARRESTER				Every 1,600 km (1,000 mi) or every 100 operating hours: C					68
*	NUTS, BOLTS, FASTENERS			I		I		I		-
**	WHEELS/TYRES			I	I	I	I	I		26, 76
**	STEERING HEAD BEARINGS			I		I		I		-

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 45) for regular service intervals.

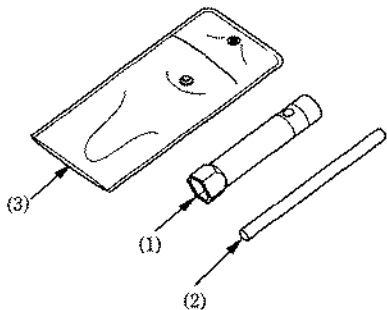
No.	ITEMS	INSPECT FOR:	ACTION	REFER TO PAGE
1	All Pre-ride Inspection items	As listed		35 - 36
2	Engine oil	Contaminants	Change	25, 60 - 62
3	Fuel line	Deterioration, damage or leakage	Replace	-
4	Valve clearance	Correct clearance	Adjust	-
5	Engine-idle speed	Correct idle speed	Adjust	65
6	Carburetor-choke	Proper operation	-	-
7	Clutch discs	Proper operation, see NOTE 1	Replace	-
8	Air cleaner	Contamination or tears	Clean or replace	56 - 58
9	Spark plug	Gap, tightness, proper heat range, and high-tension terminal security	Tighten, replace or secure	63 - 64
10	Steering head bearings	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
11	Front suspension	Smooth, operation, no oil leaks, good boot condition and oil volume	Replace or adjust	86
12	Rear suspension	Smooth operation and no oil leaks	Replace or adjust	87
13	Swingarm bearings	Smooth operation	Replace	-
14	Rear suspension linkage bushings	Wear	Replace	-
15	Brake pads	Wear beyond service limit	Replace	80
16	Drive chain: max. length/pins	637 mm (25.1 in) / 41	Replace	69 - 74
17	Sprockets	Wear and secure installation	Replace or tighten	71
18	Seat	Security	Tighten	-
19	Control cables	Smooth operation, kinks and correct routing	Lubricate or replace	-
20	Engine mounting bolts	Tightness	Tighten	-
21	Headlight (only for "U" type)	Proper beam aim	Adjust	-

TOOL KIT

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



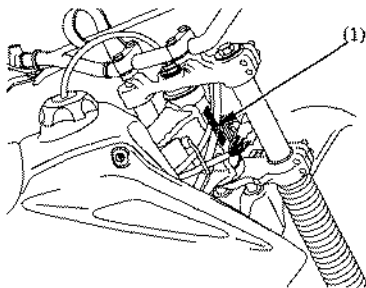
- (1) Spark plug wrench
- (2) Handle
- (3) Tool bag

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. _____

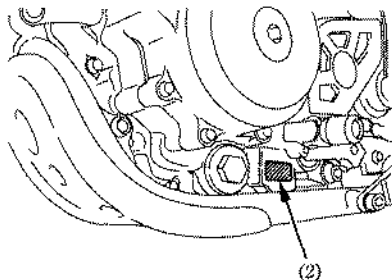


(1) Frame number

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 engine.

ENGINE NO. _____



(2) Engine number

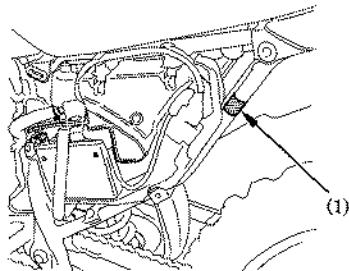
COLOUR LABEL

The colour label (1) is attached to the frame behind the left side cover (page 33).

It is helpful when ordering replacement parts.
Record the colour and code here for your reference.

COLOUR _____

CODE _____



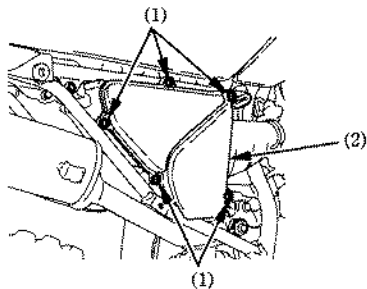
(1) Colour label

AIR CLEANER

Refer to the Safety Precautions on page 47.

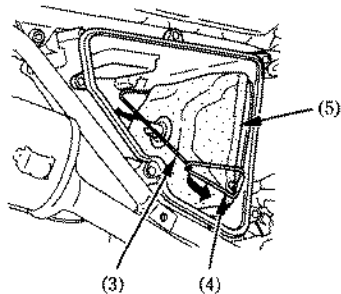
The air cleaner should be serviced at regular intervals (page 49). Service more frequently when riding in unusually wet or dusty areas.

1. Remove the right side cover (page 34).
2. Remove the screws (1) and air cleaner housing cover (2).



- (1) Screws
(2) Air cleaner housing cover

3. Unhook the set spring (3), take care to avoid bending the set spring and set spring holder (4).
4. Remove the air cleaner (5).

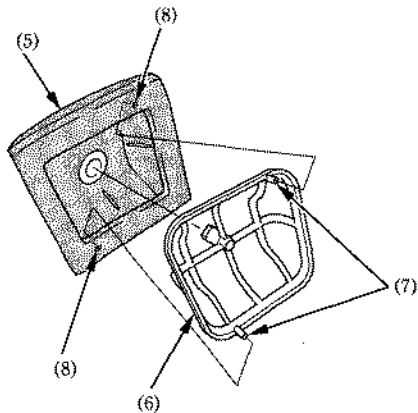


- (3) Set spring
(4) Set spring holder
(5) Air cleaner

- Remove the air cleaner holder (6) from the air cleaner (5).
- 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.

- Soak the air cleaner in gear oil (SAE 80 – 90) until saturated, then squeeze out the excess oil.
- Assemble the air cleaner and holder. Insert the tabs (7) in the air cleaner holes (8).



(5) Air cleaner
(6) Air cleaner holder

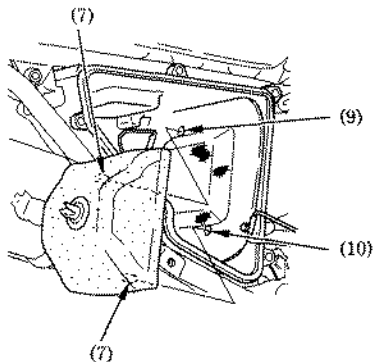
(7) Tabs
(8) Holes

9. Clean the inside of the air cleaner housing.
10. Apply a thin coat of grease to the sealing surface of the air cleaner.
11. Install the air cleaner assembly by inserting the upper tab (7) on the cleaner into the upper hole (9) in the air cleaner housing, and the lower tab (7) into the lower hole (10).

Hook the set spring.

Check that the air cleaner is properly seated.

12. Install the air cleaner housing cover and screws.
13. Install the right side cover (page 34).



- (7) Tabs
(9) Upper hole
(10) Lower hole

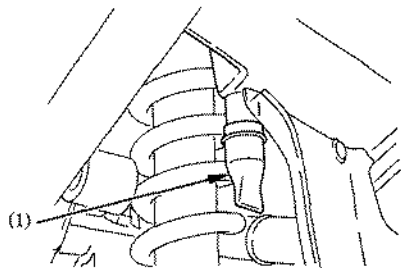
CRANKCASE BREATHER

Refer to the Safety Precautions on page 47.

Service more frequently if your motorcycle is ridden in the rain or often at full throttle.

Service the breather if you can see deposits in the transparent section of the drain tube.

- Drain the deposits by pinching the plug (1).



(1) Crankcase breather plug

ENGINE OIL

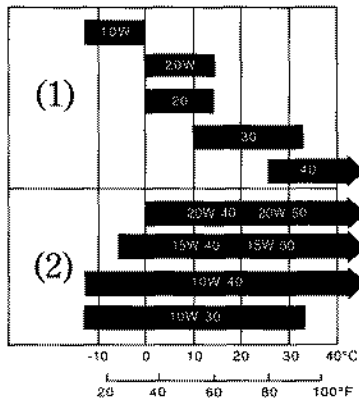
Refer to the Safety Precautions on page 47.

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 49).

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.

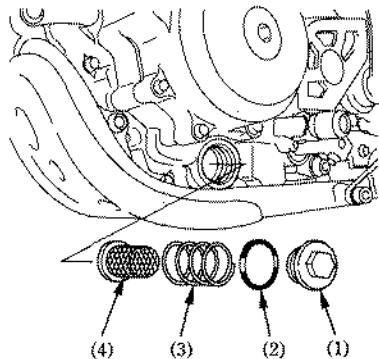
1. Remove the oil filler cap/dipstick from the right crankcase cover.
2. Place a drain pan under the crankcase.
3. Remove the oil drain plug (1), O-ring (2), spring (3) and oil strainer screen (4).
4. Clean the oil strainer screen.
5. Check that the oil strainer screen, sealing rubber and drain plug O-ring are in good condition.
6. Install the O-ring to the oil drain plug.
7. Install the oil strainer screen, spring and drain plug.

Oil Drain Plug Torque:

15 N·m (1.5 kgf·m, 11 lbf·ft)

8. Fill the crankcase with the recommended grade oil; approximately:
1.0 ℓ (1.1 US qt, 0.9 Imp qt)
9. Install the oil filler cap/dipstick.
10. Start the engine and let it idle for 2 - 3 minutes.

11. Stop the engine and check that the oil level is at the upper level mark on the oil filler cap/dipstick with the motorcycle upright on firm, level ground. Make sure there are no oil leaks.



- | | |
|--------------------|-------------------------|
| (1) Oil drain plug | (3) Spring |
| (2) O-ring | (4) Oil strainer screen |

SPARK PLUG

Refer to the Safety Precautions on page 47.

Recommended plugs:

Standard:

DPR8EA – 9 (NGK) or
X24EPR – U9 (DENSO)

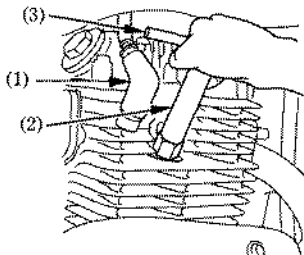
For cold climate: (Below 5°C, 41°F)

DPR7EA – 9 (NGK) or
X22EPR – U9 (DENSO)

NOTICE

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

1. Disconnect the spark plug cap (1) from the spark plug.
2. Clean any dirt from around the spark plug base.
3. Remove the spark plug with the spark plug wrench (2) and handle (3) provided in the tool bag.

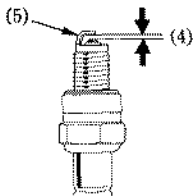


- (1) Spark plug cap
- (2) Spark plug wrench
- (3) Handle

4. Visually inspect the spark plug electrodes for wear. The center electrode should have square edges and the side electrode should not be eroded.
5. Discard the spark plug if there is apparent wear or if the insulator is cracked or chipped.
6. Check the spark plug gap (4) using a wire-type feeler gauge. If adjustment is necessary, bend the side electrode (5) carefully.
7. Make sure the plug washer is in good condition.
8. With the plug washer attached, thread the spark plug in by hand to prevent cross-threading.
9. Tighten a new spark plug 1/2 turn with a spark plug wrench to compress the washer. If you are reusing a plug, it should only take 1/8 - 1/4 turn after the plug seats.

The gap should be:

0.8 - 0.9 mm (0.03 - 0.04 in)



(4) Spark plug gap

(5) Side electrode

NOTICE

The spark plug must be securely tightened. An improperly tightened plug can become very hot and possibly damage the engine.

10. Reinstall the spark plug cap.

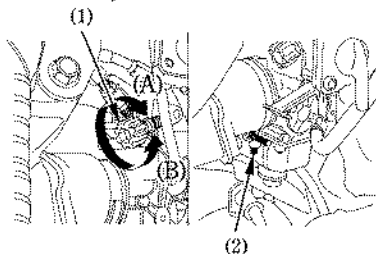
IDLE SPEED

Refer to the Safety Precautions on page 47.

Idle Speed:

The engine must be at normal operating temperature for accurate idle speed adjustment. Ten 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

(2) Pilot screw

(A) Increase

(B) Decrease

1. Warm up the engine and hold the motorcycle upright.
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 decrease 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: 1-5/8

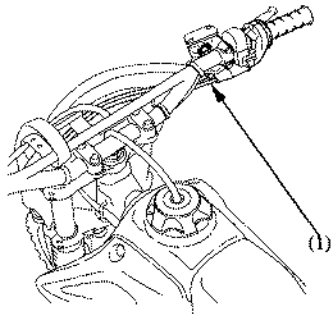
2. If the idle speed changes after adjusting fuel mixture, readjust the idle speed by turning the throttle stop screw.

THROTTLE OPERATION

Refer to the Safety Precautions on page 47.

Cable Inspection:

1. Check for smooth rotation of the throttle grip from the fully open to the fully closed position at both full 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.



- (1) Throttle
(2) Throttle cables

Free Play Adjustment:

Measure the throttle grip free play at the throttle grip flange.

The standard free play should be approximately:

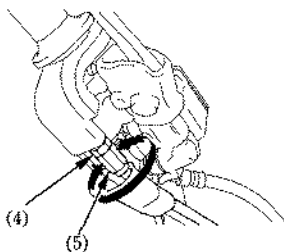
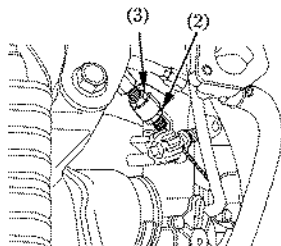
2 – 6 mm (0.1 – 0.2 in)

Major free play adjustments, such as after replacing the throttle cables or removing the carburetor, are made with the lower adjuster (3). Minor free play adjustments are made with the upper adjuster (5). To adjust free play, loosen the lock nut (2) or (4), and turn the adjuster (3) or (5).

Tighten the lock nut after adjustment.

After adjustment, check again for smooth rotation of the throttle grip from the fully closed to the fully open position with the steering to the full right and left as well as straight ahead.

If proper throttle free play cannot be achieved, contact your Honda dealer.



(2) Lower lock nut

(3) Lower adjuster

(4) Upper lock nut

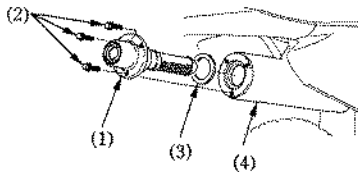
(5) Upper adjuster

SPARK ARRESTER

Refer to the Safety Precautions on page 47.

The exhaust system spark arrester must be purged of accumulated carbon periodically (see Maintenance Schedule for servicing period, page 48).

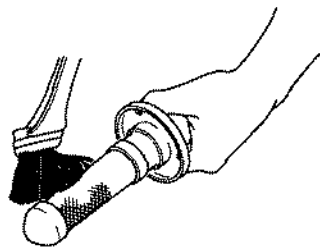
The exhaust system becomes very hot during operation and remains hot for a period of time after stopping the engine. Allow the exhaust system to cool before performing this operation.



- (1) Spark arrester
- (2) Bolts

- (3) Gasket
- (4) Muffler

1. Remove the three bolts (2), the spark arrester (1), 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.



DRIVE CHAIN

Refer to the Safety Precautions on page 47.

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 35). Under severe usage, or when the motorcycle is ridden in unusually dusty or muddy areas, more frequent maintenance will be necessary.

Inspection:

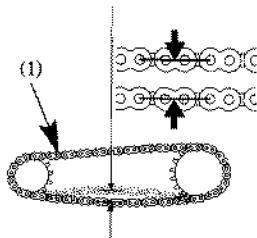
1. Turn the engine off, raise the rear wheel off the ground by placing a support under the engine, and shift the transmission into neutral.
2. Check slack in the lower drive chain run midway between the sprockets. Drive chain slack should be adjusted to allow the following vertical movement by hand:

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.

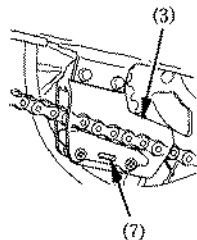
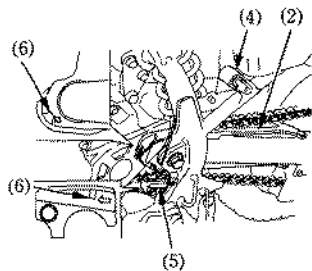


(1) Drive chain

4. Check the chain slider (2), chain guide slider (3), chain roller (4) and lower slider (5) for wear.

If the chain slider and lower slider are worn to the bottom of the cutouts (6), have your Honda dealer replace the slider. 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:
18 mm (0.7 in)

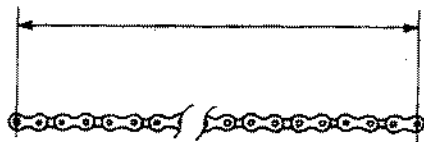


- | | |
|------------------------|-----------------------|
| (2) Chain slider | (5) Lower slider |
| (3) Chain guide slider | (6) Cutouts |
| (4) Chain roller | (7) Inspection window |

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: 637 mm (25.1 in)

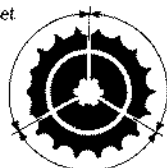


Span of pins measured: 41

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.

Damage sprocket
Teeth
Replace



Worn sprocket
Teeth
Replace

Normal sprocket Teeth
GOOD

Standard sprocket sizes:

Drive sprocket (engine)	Driven sprocket (rear wheel)
13 teeth	50 teeth

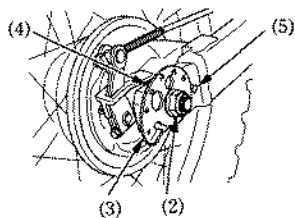
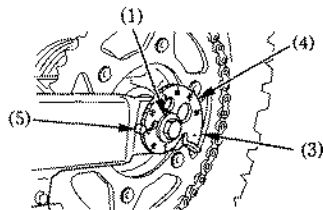
If the drive chain or sprockets are excessively worn or damaged, they should be replaced. Never use a new chain with worn sprockets; rapid chain wear will result.

Adjustment:

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

1. Place a support block under the engine to raise the rear wheel off the ground.
2. Loosen the rear axle nut (2) while holding the axle.
3. Turn both the right and left adjusters (3) equally to increase or decrease chain slack.
4. After adjusting, be sure the same adjuster index marks (4) align with the stopper pins (5) on both sides of the swingarm.

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.



- | | |
|--------------------|-----------------|
| (1) Axle | (4) Index mark |
| (2) Axle nut | (5) Stopper pin |
| (3) Chain adjuster | |

5. Tighten the rear axle nut to:
108 N·m (11.0 kgf·m, 80 lbf·ft)

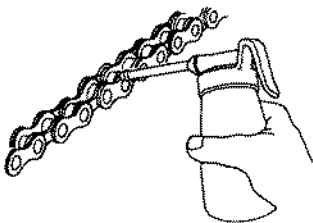
If a torque wrench is not used for this installation, see your Honda dealer as soon as possible to verify proper assembly.

6. Recheck drive chain slack.
7. Rear brake pedal free play is affected when repositioning the rear wheel to adjust drive chain slack. Check rear brake pedal free play and adjust as necessary (page 17).

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. 520V6 (KAI) or RK 520SMOZ2

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

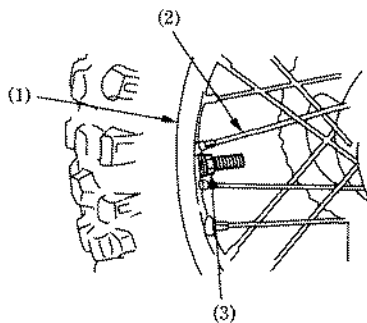
3. Inspect the sprocket teeth for possible wear or damage. Replace if necessary.
4. Lubricate the drive chain (page 73).

WHEEL RIMS AND SPOKES

Refer to the Safety Precautions on page 47.

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

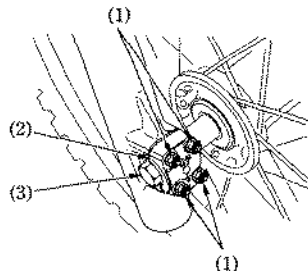
WHEEL REMOVAL

Refer to the Safety Precautions on page 47.

Front Wheel Removal

1. Raise the front wheel off the ground by placing a support block under the engine.
2. Loosen the axle holder nuts (1) and remove the front axle holder (2).
3. Unscrew the axle (3). Remove the wheel.

Do not depress the brake lever when 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.



- (1) Axle holder nuts
- (2) Axle holder
- (3) Front axle

Installation:

1. Reverse the removal procedure. Insert the axle through the wheel hub and left fork leg.
2. Tighten the axle.

Axle torque:

74 N·m (7.5 kgf.m, 54 lbf·ft)

3. First tighten the upper holder nuts until lightly seated, then tighten the lower axle nuts until lightly seated.
4. Operate the front brake and pump the fork several times.
5. First tighten the upper holder nuts to the specified torque, then tighten the lower axle nuts to the same torque:

12 N·m (1.2 kgf.m, 9 lbf·ft)

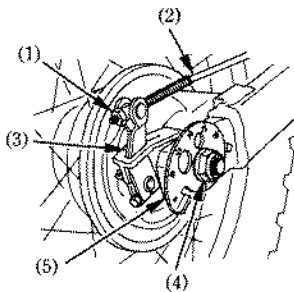
6. After installing the wheel, apply the brake several times and then check if the wheel rotates freely. Recheck the wheel if the brake drags or if the wheel does not rotate freely.

Check front brake adjustment (page 15).

If the 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

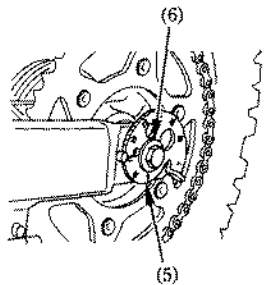
1. Raise the rear wheel off the ground by placing a support block under the engine.
2. Unscrew the rear brake adjuster (1).
3. Press and release the rear brake pedal and disconnect the brake rod (2) from the brake arm (3).
4. Loosen the rear axle nut (4) while holding the axle.



- (1) Adjuster
- (2) Brake rod
- (3) Brake arm

- (4) Axle nut
- (5) Chain adjusters

5. Turn both adjusters (5) so the rear wheel can be moved all the way forward for maximum drive chain slack.
6. Move the rear wheel forward. Deraile the drive chain from the driven sprocket.
7. Remove the axle nut, chain adjusters, washer, side collar, axle (6) and rear wheel from the swingarm.

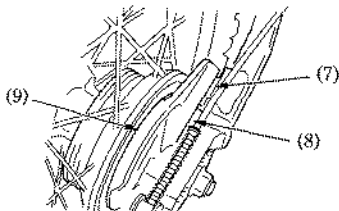


- (5) Chain adjusters
- (6) Axle

Installation:

1. Reverse the removal procedure. Make sure that the lug (7) on the swingarm is located in the slot (8) in the brake panel (9).
2. Adjust the drive chain (pages 72 - 73).
3. Tighten the axle nut to:
108 N·m (11.0 kgf·m, 80 lbf·ft)
4. Adjust the brake (page 17).
5. Apply the brake several times and check for free wheel rotation after the brake pedal is released.

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.



(7) Lug
(8) Slot

(9) Brake panel

BRAKE PAD WEAR

Refer to the Safety Precautions on page 47.

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

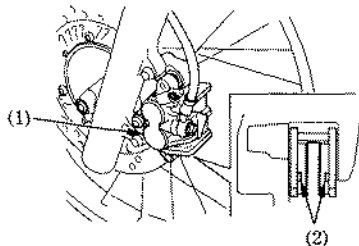
Inspect the pads at each regular maintenance interval (page 50).

Front Brake

Check the cutout (2) 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>



- (1) Brake caliper
- (2) Cutouts

BRAKE SHOE WEAR

Refer to the Safety Precautions on page 47.

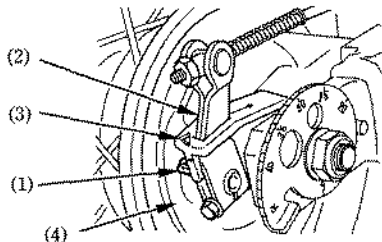
The rear brake is equipped with a brake wear indicator.

When the brake is applied, an arrow (1) attached to the brake arm (2) moves toward a reference mark (3) on the brake panel (4). If the arrow aligns with the reference mark on full application of the brake, the brake shoes must be replaced.

See your Honda dealer for this service.

When the brake service is necessary, see your Honda dealer. Use only genuine Honda parts or its equivalent.

<REAR BRAKE>



- (1) Arrow
- (2) Brake arm
- (3) Reference mark
- (4) Brake panel

BATTERY

Refer to the Safety Precautions on page 47.

It is not necessary to check the battery electrolyte level or add distilled water as the battery is a maintenance-free (sealed) type.

If your battery seems weak and/or is leaking electrolyte (causing hard starting or other electrical troubles), contact your Honda dealer.

NOTICE

Your battery is a maintenance-free type and can be permanently damaged if the cap strip is removed.

▲ WARNING

The battery gives off explosive hydrogen gas during normal operation.

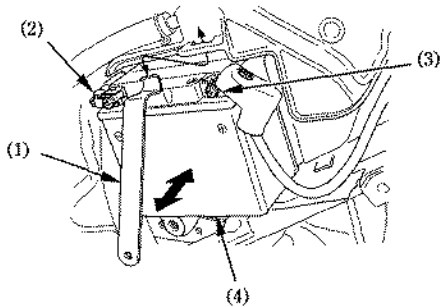
A spark or flame can cause the battery to explode with enough force to kill or seriously hurt you.

Wear protective clothing and a face shield, or have a skilled mechanic do the battery maintenance.

Battery Removal

The battery (4) is in the battery compartment behind the left side cover.

1. Remove the left side cover (page 33).
2. Remove the battery holder (1).
3. Disconnect the negative (-) terminal lead (2) from the battery first, then disconnect the positive (+) terminal lead (3).
4. Pull out the battery (4) from the battery box.



- (1) Battery holder
- (2) Negative (-) terminal lead
- (3) Positive (+) terminal lead
- (4) Battery

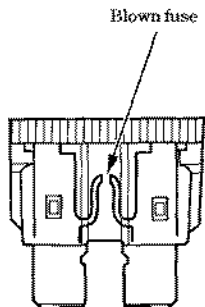
FUSE REPLACEMENT

Refer to the Safety Precautions on page 47.

When frequent fuse failure occurs, it usually indicates a short circuit or an overload in the electrical system. See your Honda dealer for repair.

NOTICE

Never use a fuse with a different rating from that specified. Serious damage to the electrical system or a fire may result, causing a dangerous loss of lights or engine power.



Main Fuse:

The main fuse (1) is located behind the left side cover.

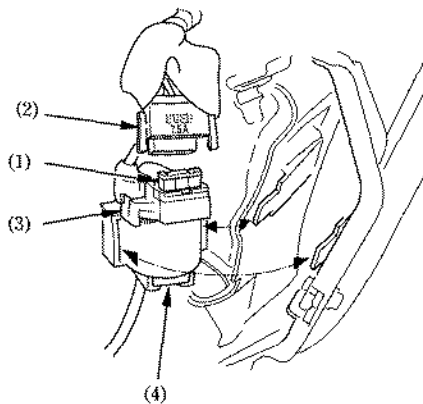
The specified fuse is:

7.5A

1. Remove the left side cover (page 33).
2. Disconnect the wire connector (2) of the starter magnetic switch (3).
3. Pull out the fuse. If the fuse is blown install a new fuse.

The spare main fuse (4) is located under the starter magnetic switch.

4. Reconnect the wire connector and install the left side cover.

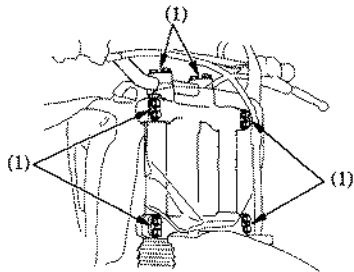


- (1) Main fuse
- (2) Wire connector
- (3) Starter magnetic switch
- (4) Spare main fuse

FRONT SUSPENSION

Refer to the Safety Precautions on page 47.

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).



(1) Mounting bolts

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.

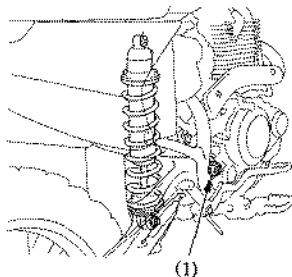
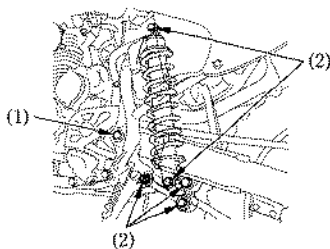
REAR SUSPENSION

Refer to the Safety Precautions on page 47.

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

1. Swingarm bearings (1) should be checked by pushing hard against the side of the rear wheel while the motorcycle is on a support block. Free play indicates worn bearings.
2. Check all suspension component attachment points for security of their fasteners (2).
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.



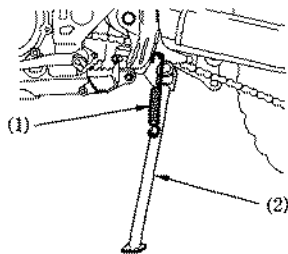
(1) Swingarm bearings (2) Fasteners

SIDE STAND

Refer to the Safety Precautions on page 47.

Check the side stand spring for damage and loss of tension, and the side stand assembly for freedom of movement.

If the side stand is squeaky or stiff, clean the pivot area and lubricate the pivot bolt with clean engine oil.



(1) Side stand spring

(2) Side stand

BULB REPLACEMENT (ONLY "U" TYPE)

Refer to the Safety Precautions on page 47.

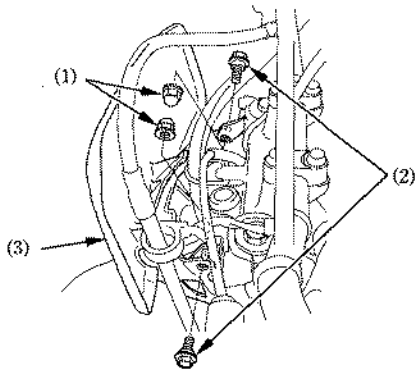
The light bulb becomes very hot while the light is ON, and remain hot for a while after it is turned OFF. Be sure to let it cool down before servicing.

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 that specified.
- After installing a new bulb, check that the light operates properly.

Headlight Bulb

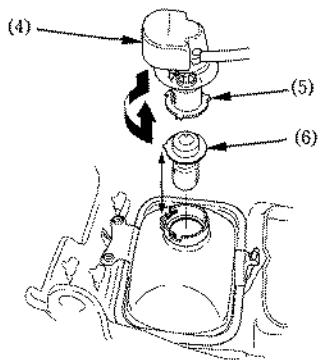
Remove the nuts (1), bolts (2) and headlight (3).



(1) Nuts
(2) Bolts

(3) Headlight

2. Pull back the rubber cover (4).
3. Slightly press the socket (5) and turn it counterclockwise. Remove the bulb (6).
4. Install a new bulb in the reverse order of removal.
 - When installing the bulb, align the tab on the bulb with the groove in the headlight.



(4) Rubber cover
(5) Socket

(6) Bulb

CLEANING

Clean your motorcycle regularly to protect the surface finishes and inspect for damage, wear and oil 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
- Engine Stop Button
- Under Fuel Tank
- Drive Chain
- Carburetor
- Ignition Switch
- 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.

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 55) 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 clean the filter screen.
2. 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.

3. 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.
4. Wash and dry the motorcycle. Wax all painted surfaces. Coat chrome with rustinhibiting oil.
5. Lubricate the drive chain (page 73).
6. Inflate the tyres to their recommended pressures. Place the motorcycle on blocks to raise both tyres off the ground.
7. 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. Charge the battery as required.
Install the battery.
4. Fill the fuel tank with fresh petrol.
5. Perform all Pre-ride Inspection checks (page 35).
6. Test ride the motorcycle at low speeds in a safe riding area away from traffic.

SPECIFICATIONS

DIMENSIONS

Overall length	2,059 mm (81.1 in)
Overall width	812 mm (32.0 in)
Overall height	1,190 mm (46.9 in)
Wheelbase	1,372 mm (54.0 in)

WEIGHT

Dry weight	107.9 kg (237.9 lb)
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CAPACITIES

Engine oil	After draining	1.0 ℓ (1.1 US qt, 0.9 Imp qt)
	After disassembly	1.2 ℓ (1.3 US qt, 1.1 Imp qt)
Fuel tank		8.2 ℓ (2.17 US gal, 1.80 Imp gal)
Fuel reserve		1.5 ℓ (0.40 US gal, 0.33 Imp gal)
Passenger capacity		Operator only; no passenger
Maximum weight capacity		100 kg (220 lbs)

ENGINE

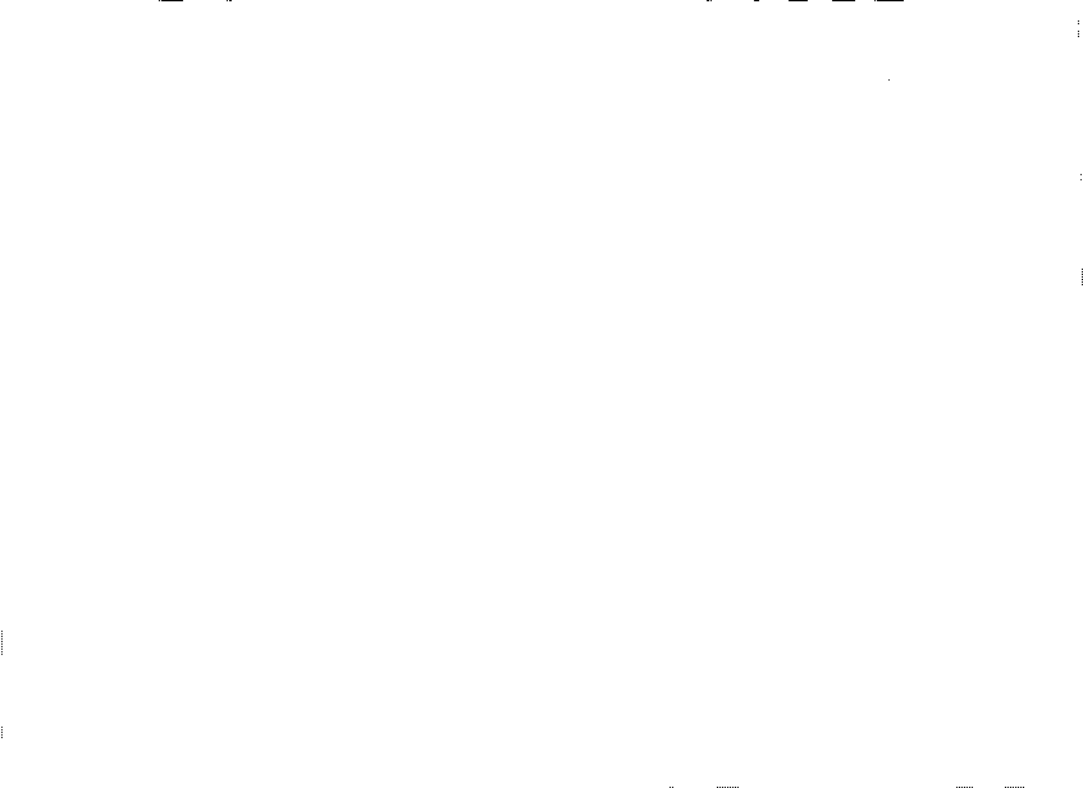
Bore and stroke	65.5 x 66.2 mm (2.58 x 2.61 in)
Compression ratio	9.0:1
Displacement	223.0 cm ³ (13,60 cu.in)
Spark plug	
Standard	DPR8EA – 9 (NGK) or X24EPR – U9 (DENSO)
For cold climate (Below 5°C, 41°F)	DPR7EA – 9 (NGK) or X22EPR – U9 (DENSO)
Idle speed	1,400 ± 100 min ⁻¹ (rpm)
Valve clearance (Cold)	Intake 0.10 mm (0.004 in) Exhaust 0.10 mm (0.004 in)

CHASSIS AND SUSPENSION

Caster	26°45'
Trail	111 mm (4.4 in)
Tyre size, front	80/100-21
	80/100-21M/C
Tyre size, rear	100/100-18
	100/100-18 M/C

POWER TRANSMISSION

Primary reduction	3.090
Gear ratio, 1st	2.769
2nd	1.941
3rd	1.450
4th	1.148
5th	0.960
6th	0.812
Final reduction	3.846



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