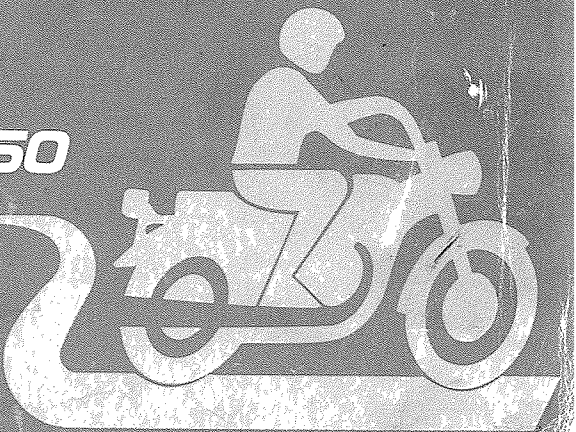
'83

OWNER'S MANUAL

HONDA
Nighthawk 650



READ BEFORE YOU RIDE!

IMPORTANT NOTICE

- **OPERATOR AND PASSENGER**

  This motorcycle is designed to carry the operator and one passenger. Never exceed the vehicle capacity load as shown on the tire information label.

- **ON-ROAD USE**

  This motorcycle is not equipped with a spark arrester and is designed to be used only on the road. Operation in forest, brush, or grass covered areas may be illegal. Obey local laws and regulations.

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

  Pay special attention to statements preceded by the following words:

WARNING

Indicates a strong possibility of severe personal injury or loss of life if instructions are not followed.

CAUTION:

Indicates a possibility of personal injury or equipment damage if instructions are not followed.

NOTE: Gives helpful information.

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

HONDA CB650SC NIGHTHAWK OWNER'S MANUAL

1983

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WELCOME,

Your new motorcycle presents you with an invitation to adventure and a challenge to master the motorcycle. 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. Also, for your own and your Honda's sake, please read all the written material which came with your new Honda. These items include;

- *Honda Owner's Identification Card
- *Set-up and Predelivery Checklist
- *Honda Motorcycle Emission Control System, Distributor's Warranty
- *Honda Motorcycle, Distributor's Limited Warranty

When service is required, remember that your Honda dealer knows what it takes to keep your Honda going strong. If you have the required mechanical "know-how" and tools, your dealer can supply you with an official Honda Shop Manual to help you perform may maintenance and repair tasks.

Pleasant riding, and thank you for choosing a Honda!

CONTENTS

MOTORCYCLE SAFETY

WARNING

* ***Motorcycle riding requires special efforts on your part to ensure your safety. Know these requirements before you ride.***

SAFE RIDING RULES

1. Always make a pre-ride inspection (page 31) before you start the engine. You may prevent an accident or equipment damage.
2. Many accidents involve inexperienced riders. Most states require a special motorcycle riding test or license. Make sure you are qualified before you ride. NEVER lend your motorcycle to an inexperienced rider.
3. Many automobile/motorcycle accidents happen because the automobile driver does not "see" the motorcyclist. Make yourself conspicuous to help avoid the accident that wasn't your fault:
   - Wear bright or reflective clothing.
   - Don't ride in another motorist's "blind spot."
4. Obey all federal, state and local laws and regulations.
   - Excessive speed is a factor in many accidents. Obey the speed limits, and NEVER travel faster than conditions warrant.
   - Signal before you make a turn or lane change. Your size and maneuverability can surprise other motorists.
5. Don't let other motorists surprise you. Use extra caution at intersections, parking lot entrances and exits, and driveways.
6. Keep both hands on the handlebars and both feet on the footpegs while riding. A passenger should hold on to the motorcycle or the operator with both hands and keep both feet on the passenger footpegs.

PROTECTIVE APPAREL

1. Most motorcycle accident fatalities are due to head injuries: ALWAYS wear a helmet. You should also wear a face shield or goggles as well as boots, gloves, and protective clothing. A passenger needs the same protection.
2. The exhaust system becomes very hot during operation, and it remains hot after operation. Never touch any part of the hot exhaust system. Wear clothing that fully covers your legs.
3. Do not wear loose clothing which could catch on the control levers, footpegs or wheels.

MODIFICATIONS

WARNING

* *Modification of the motorcycle, or removal of original equipment may render the vehicle unsafe or illegal. Obey all federal, state and local equipment regulations.*

LOADING AND ACCESSORIES

WARNING

* *To prevent an accident, use extreme care when adding and riding with accessories and cargo. Addition of accessories and cargo can reduce a motorcycle's stability, performance and safe operating speed. Never ride an accessory equipped motorcycle at speeds above 80 mph. And remember that this 80 mph limit may be reduced by installation of non-Honda accessories, improper loading, worn tires and overall motorcycle condition, poor road or weather conditions, etc. These general guidelines may help you decide whether or how to equip your motorcycle, and how to load it safely.*

Loading

The combined weight of the rider, passenger, cargo and additional accessories must not exceed 355 lbs (161 kg), the vehicle capacity load. Cargo weight alone should not exceed 60 lbs.

1. Keep cargo and accessory weight low and close to the center of the motorcycle. Load weight equally on both sides to minimize imbalance. As weight is located farther from the motorcycle's center of gravity, handling is proportionally affected.
2. Adjust tire pressure (page 5), front suspension (page 8) and rear suspension (pages 9, 10) to suit load weight and riding conditions.
3. Luggage racks are for lightweight items. Do not carry more than 30 lbs. of cargo on a luggage rack behind the seat. Bulky items too far behind the rider may cause wind turbulence that impairs handling.
4. All cargo and accessories must be secure for stable handling. Recheck cargo security and accessory mounts frequently.
5. Do not attach large, heavy items to the handlebars, front forks, or fender. Unstable handling or slow steering response may result.

Accessories

Genuine Honda accessories have been specifically designed for and tested on this motorcycle.

Because the factory cannot test all other accessories, you are personally responsible for proper selection, installation and use of accessories. Always follow the guidelines under Loading, and these:

1. Carefully inspect the accessory to make sure it does not obscure any lights, reduce ground clearance and banking angle or limit suspension travel, steering travel or control operation.
2. Large fork-mounted fairings or windshields, or poorly designed or improperly mounted fairings can produce aerodynamic forces that cause unstable handling. Do not install fairings that decrease cooling air flow to the engine.
3. Accessories which alter your riding position by moving hands or feet away from controls may increase reaction time in an emergency.
4. Do not add electrical equipment that will exceed the motorcycle's electrical system capacity. A blown fuse could cause a dangerous loss of lights or engine power at night or in traffic.
5. This motorcycle was not designed to pull a sidecar or trailer. Handling may be seriously impaired if so equipped.

TUBELESS TIRES

This motorcycle is equipped with tubeless tires, valves, and wheel rims. Use only tires marked "TUBELESS" and tubeless valves on rims marked "TUBELESS TIRE APPLICABLE."

Proper air pressure will provide maximum stability, riding comfort and tire life.

Check tire pressures frequently and adjust if necessary.

NOTE:

* Check tire pressures when the tires are "cold," before you ride.
* Tubeless tires have some degree of self-sealing ability if they are punctured, and leakage is often very slow. Inspect very closely for puntures, especially if the tire is not fully inflated.

Dry weight kg (lbs)	197 (434)
Curb weight (wet) kg (lbs)	210 (463)
Gross vehicle weight rating kg (lbs)	372 (820)
Vehicle capacity load kg (lbs)	161 (355)

		Front	Rear
Tire size		100/90-19 57H	130/90-16 67H
Cold tire pressures psi (kPa, kg/cm²)	Up to 90 kg (200 lbs) load	32 (225, 2.25)	32 (225, 2.25)
	90 kg (200 lbs) load to vehicle capacity load	32 (225, 2.25)	40 (280, 2.80)
Tire brand TUBELESS ONLY BRIDGESTONE		L303	G508
DUNLOP		F11	K627

Check the tires for cuts, imbedded nails or other sharp objects. Check the rims for dents or deformation. If there is any damage, see your authorized Honda dealer for repair, replacement, and balancing.

WARNING

* *Improper tire inflation will cause abnormal tread wear and create a safety hazard. Underinflation may result in the tire slipping on, or coming off of the rim.*
* *Operation with excessively worn tires is hazardous and will adversely affect traction and handling.*

Replace tires before tread depth at the center of the tire reaches the following limit:

Minimum tread depth	
Front:	1.5 mm (1/16 in)
Rear:	2.0 mm (3/32 in)

Repair/Replacement:

See your authorized Honda dealer.

WARNING

* *The use of tires other than those listed on the tire information label may adversely affect handling.*
* *Do not install tube-type tires on tubeless rims. The beads may not seat and the tires could slip on the rims, causing tire deflation.*
* *Do not install a tube inside a tubeless tire. Excessive heat build-up may cause the tube to burst resulting in rapid tire deflation.*
* *Proper wheel balance is necessary for safe, stable handling of the motorcycle. Do not remove or change any wheel balance weights. When wheel balancing is required, see your authorized Honda dealer. Wheel balancing is required after tire repair or replacement.*
* *Do not exceed 50 mph (80 km/h) for the first 24 hours after tire repair, or repair failure and tire deflation may result. Never use a repaired tire for racing or speeds over 80 mph (120 km/h).*

WARNING

* *Replace the tire if the sidewall is punctured or damaged. Sidewall flexing may cause repair failure and tire deflation.*

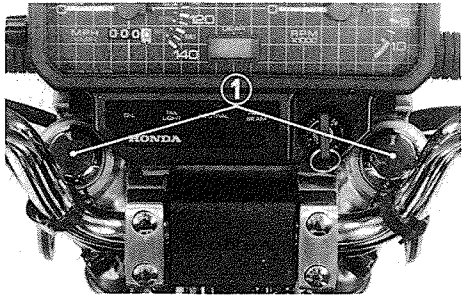
CAUTION:

* *Do not try to remove tubeless tires without special tools and rim protectors. You may damage the rim sealing surface or disfigure the rim.*

SUSPENSION

Front Suspension

The front suspension of this motorcycle can provide the desired ride under various rider/cargo weights and riding conditions through adjustment of the air pressure within the fork tubes. The recommended pressure under normal riding conditions is 0–6 psi (0–40 kPa, 0–0.4 kg/cm²). Low air pressure settings provide a softer ride and are for light loads and smooth road conditions. High air pressure settings provide a firmer ride and are for heavy loads and rough road conditions. Check and adjust air pressure when the front fork tubes are cold before riding.



(1) Valve caps

1. Place the motorcycle on its center stand. Do not use the side stand or you will get false pressure readings.
2. Remove the front fork air valve caps (1).
3. Check the air pressure using the pressure gauge.

NOTE:

* Some pressure will be lost when removing the gauge from the valve. Determine the amount of loss and compensate accordingly.

4. Add air to the recommended pressure. Be certain to adjust both front forks to the same air pressure.

NOTE:

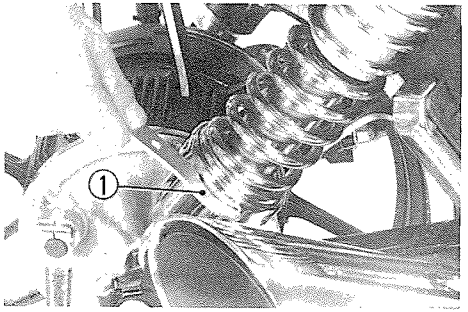
* Do not exceed the recommended air pressure or the ride will be harsh and uncomfortable.

Rear Shock Absorbers

This motorcycle has shock absorbers with two adjustable functions to provide the desired ride with various rider/cargo weights.

The spring adjuster (1) adjusts spring preload for changes in rider/cargo weight.

The rebound damping adjuster (2) adjust damping to provide the desired ride (soft to firm) under various rider/cargo weights and riding conditions.



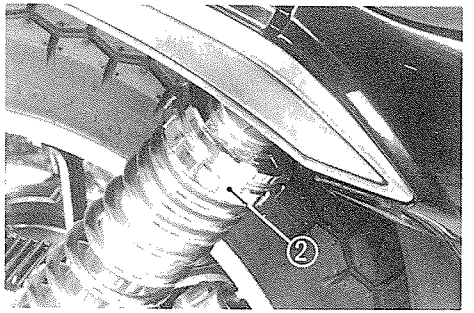
(1) Spring adjuster

WARNING

* *Be careful not to touch hot mufflers while adjusting the shock absorbers.*

Adjust spring preload first, using the tool kit hook spanner to rotate the spring adjuster (1). Position 1 is for light loads and positions 2 to 5 progressively increase preload for heavier loads.

After adjusting preload, rotate the rebound damping adjuster (2) with the hand to select one of the four positions.



(2) Damping adjuster

NOTE:

* Be sure to adjust both shock absorbers to the same positions.

Recommended Rear Suspension Adjustment:

REBOUND DAMPING ADJUSTER	SPRING ADJUSTER	CONDITIONS	
		RIDERS/LOAD	RIDING CONDITIONS
1	2	One	Highways
2	2	One	Around town
3	2	One	Winding road
2	5	One/Two	Highways
3	5	One/Two or carrying load	Around town
4	5	One/Two or carrying load	Winding road

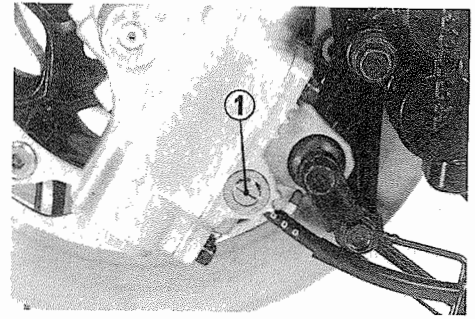
T.R.A.C. Anti-dive Adjuster

This adjuster (1) reduces nose-dive during braking and may be adjusted to the rider's choice independent of load or the rider's weight. Located on the left side of the front fork, this adjuster can be set to any one of four positions, using a punch mark and numerals.

WARNING

* ***Do not position the adjuster between the numbered detent adjustment points.***

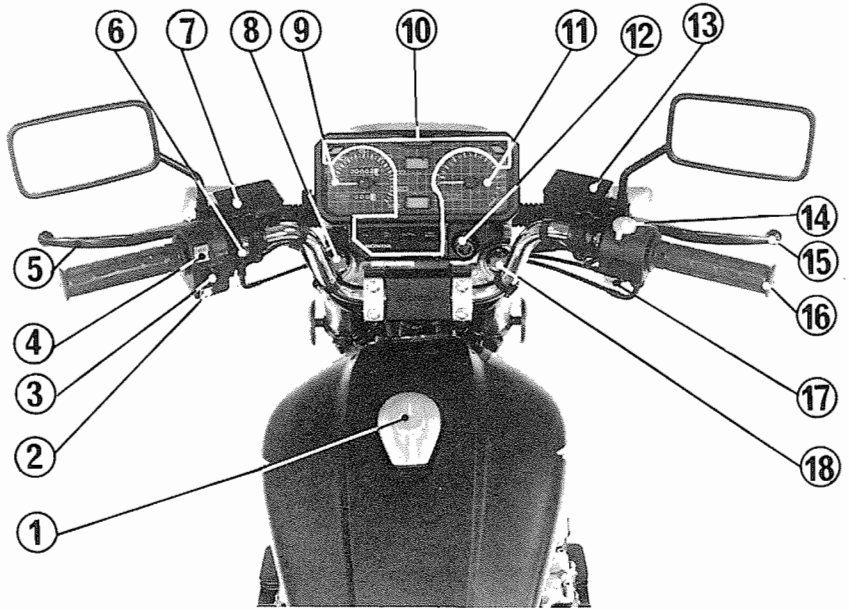
Position	Anti-drive damper force
1	LIGHT ANTI-DIVE
2	MEDIUM
3	HARD
4	MAXIMUM ANTI-DIVE

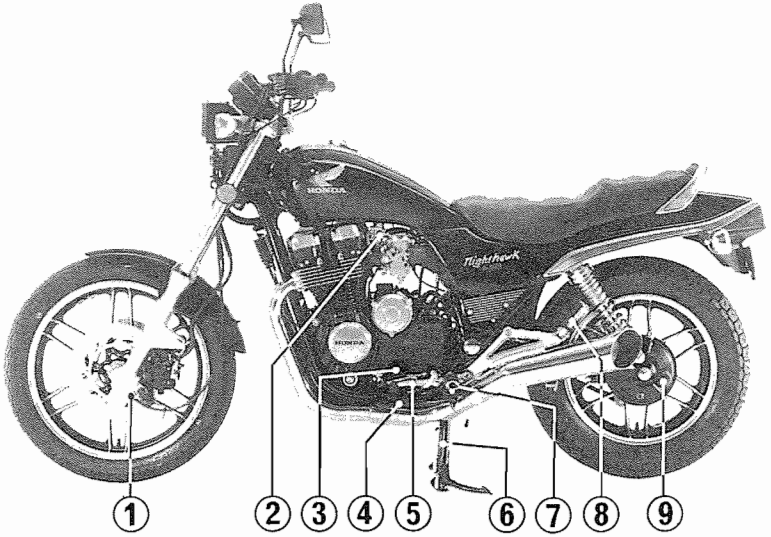


(1) Anti-dive adjuster

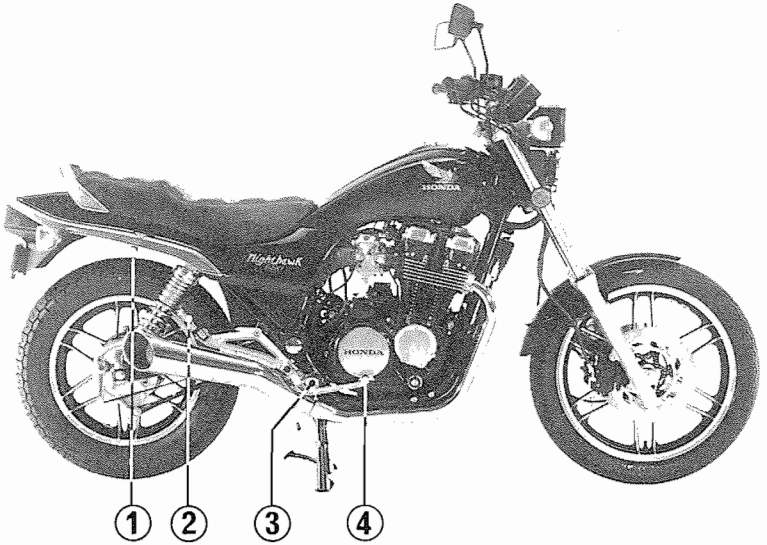
PARTS LOCATION

(1) Fuel tank cap
(2) Horn button
(3) Turn signal switch
(4) Headlight dimmer switch
(5) Clutch lever
(6) Choke lever
(7) Clutch fluid reservoir
(8) Air valve cap
(9) Speedometer
(10) Warning and indicator lights
(11) Tachometer
(12) Ignition switch
(13) Front brake reservoir
(14) Engine stop switch
(15) Front brake lever
(16) Throttle grip
(17) Starter button
(18) Air valve cap





(1) TRAC anti-dive adjuster
(2) Fuel valve
(3) Engine oil filler cap/dipstick
(4) Side stand
(5) Gearshift pedal
(6) Center stand
(7) Footpeg
(8) Passenger footpeg
(9) Final drive gear oil filler cap



(1) Helmet holder
(2) Passenger footpeg
(3) Footpeg
(4) Rear brake pedal

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.

CB650SC

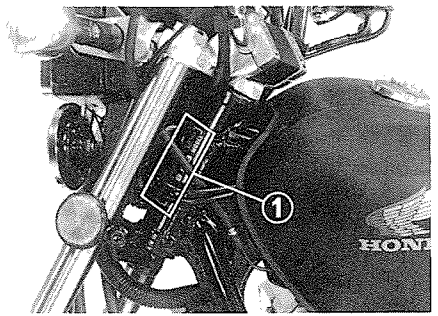
VIN JH2RC1304DM018251

The VIN, Vehicle Identification Number (1), is on the Safety Certification Lavel affixed to the left side of the steering head. The frame number (2) is stamped on the right side of the steering head.

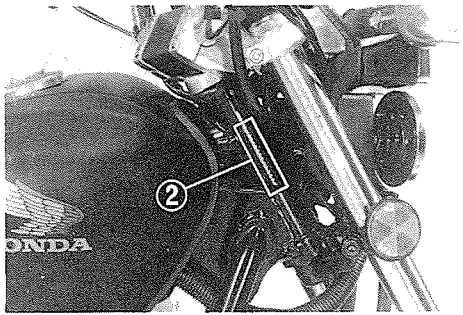
FRAME NO. JH2RC1304DM018251

The engine number (3) is stamped on top of the crankcase.

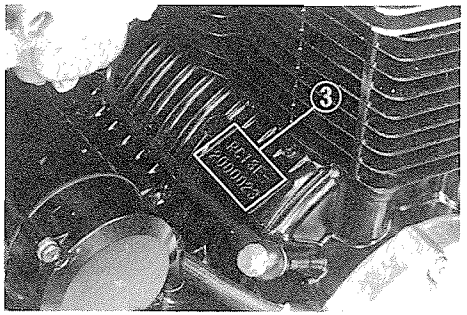
ENGINE NO. RC13E-2019281



(1) VIN



(2) Frame number



(3) Engine number

PARTS FUNCTION

Instruments and Indicators

The indicators and warning lights are grouped around the instruments. Their functions are described in the tables on the following pages.

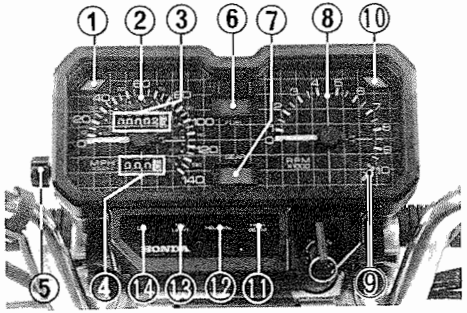
USA model:

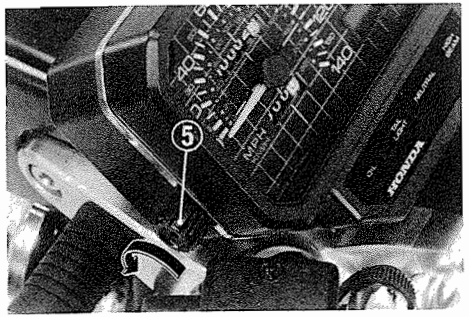
Odometer and tripmeter read in miles.

Canadian model:

Odometer and tripmeter read in kilometers.

(1) Left turn signal indicator
(2) Speedometer
(3) Odometer
(4) Tripmeter
(5) Tripmeter reset knob
(6) Fuel liquid crystal display
(7) Gear position liquid crystal display
(8) Tachometer
(9) Tachometer red zone
(10) Right turn signal indicator
(11) High beam indicator
(12) Newtral indicator
(13) Tail/stoplight warning light
(14) Oil pressure warning light



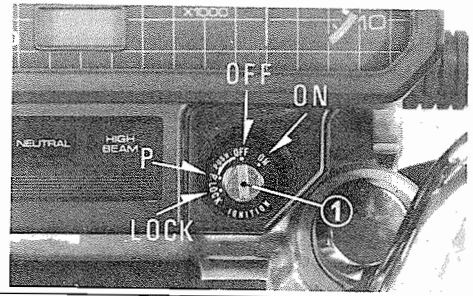


Ref. No,	Description	Function
1.	Left turn signal indicator	Flashes when left turn signal operates.
2.	Speedometer	Shows riding speed.
3.	Odometer	Shows accumulated mileage.
4.	Tripmeter	Shows mileage per trip.
5.	Tripmeter reset knob	Resets tripmeter to zero (0). Turn knob in direction shown.
6.	Fuel liquid crystal display	Shows approximate fuel supply available. (See page 25)
7.	Gearposition liquid crystal display	The motorcycle's gear position is indicated.
8.	Tachometer	Shows engine rpm.
9.	Tachometer red zone	Avoid operating the engine in the red zone. NEVER operate beyond the red zone. **CAUTION:** * *Exceeding recommended maximum engine rpm may cause serious engine damage.*

Ref. No.	Description	Function
10.	Right turn signal indicator	Flashes when right turn signal operates.
11.	High beam indicator	Lights when headlight is on high beam.
12.	Neutral indicator	Lights when transmission is in neutral.
13.	Tail/stoplight warning light	Lights when the tail/stoplight bulb is burned out. Should light for a few seconds and go out when the ignition switch is turned ON.
14.	Oil pressure warning light	Lights when engine oil pressure is below normal operating range. Should light when ignition switch is ON and engine is not running. Should go out when engine starts, except for occasional flickering at or near idling speed when the engine is warm. **CAUTION:** * *Running the engine with insufficient oil pressure will cause serious engine damage*

Ignition Switch

The ignition switch (1) is below the indicator panel.



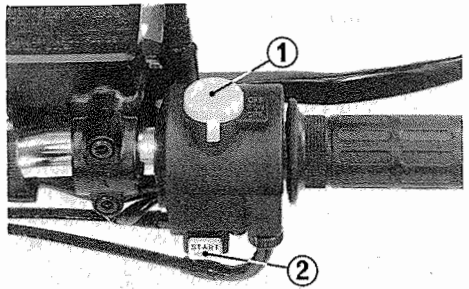
Key Position	Function	Key Removal
LOCK (Steering lock)	Steering is locked. Engine and lights cannot be operated.	Remove the key.
OFF	Engine and lights cannot be operated.	Remove the key.
ON	Headlight, taillight and instrument lights are on and other lights can be operated. Engine can be started when the engine stop switch is at RUN.	Key cannot be removed.
P (Parking)	For parking the motorcycle near traffic. The taillight is on, but all other lights are off. The engine cannot be started.	Remove the key

Engine Stop Switch
The three position engine stop switch (1) is next to the throttle grip. In RUN, the engine will operate. In either OFF position the engine will not operate. This switch is intended primarily as a safety or emergency switch and should normally remain in RUN.

NOTE:

* If your motorcycle is stopped with the ignition switch ON and the engine stop switch OFF, the headlight and taillight will still be on, resulting in battery discharge.

Starter Button
The starter button (2) is below the engine stop switch (1).
When the starter button is pressed the starter motor will crank the engine, the headlight will automatically go out, but the taillight will stay on.
See pages 32–33 for starting procedure.



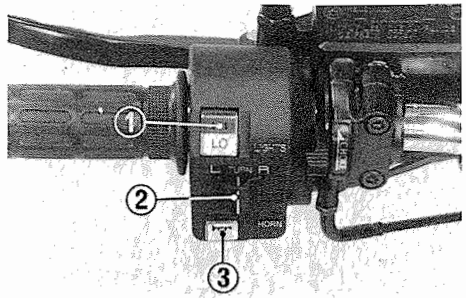
(1) Engine stop switch
(2) Starter button

The three controls next to the left handlebar grip are:

Headlight Dimmer Switch (1)
Select HI for high beam, LO for low beam.

Turn Signal Switch (2)
Move to "L" to signal a left turn, "R" to signal a right turn. Return to the center (off) when finished.

Horn Button (3)
Press the button to sound the horn.

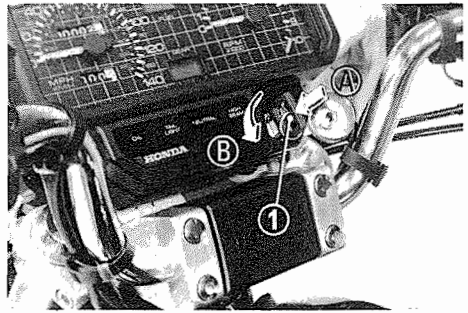


(1) Headlight dimmer switch
(2) Turn signal switch
(3) Horn button

Steering Lock
To lock the steering, turn the handlebars all the way to the left, turn the key (1) to LOCK while pushing in. Remove the key.

WARNING

* *Do not turn the key to LOCK while riding the motorcycle.*



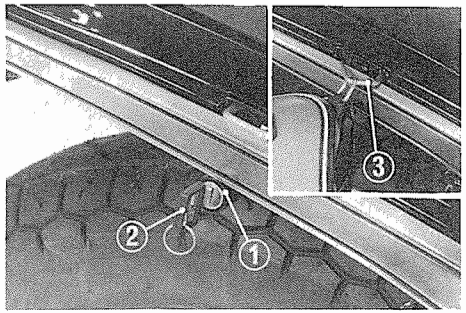
(1) Ignition key
(A) Push in
(B) Turn to LOCK

Helmet Holder

The holmet holder (1) is on the right side below the seat. Insert the ignition key (2) and turn it clockwise to unlock.
Hang your helmet on the lock and push in the holder pin (3).

WARNING

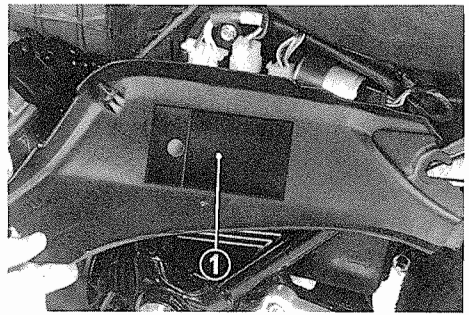
* *The helmet holder is designed for use while parking. Do not operate the motorcycle with a helmet attached to the holder. The helmet may interfere with the rear wheel, possibly stopping the wheel.*



(1) Helmet holder
(2) Ignition key
(3) Holder pin

Document Bag

The document bag (1) is attached to the left side cover.
This owner's manual and other documents should be stored in the plastic bag. When washing your motorcycle, be careful not to flood this area with water.



(1) Document bag

Fuel Liquid Crystal Display

The fuel liquid crystal display shows the approximate fuel supply available in a graduated display.
At F (full), there is 13 liters (3.4 US gal). When the fuel liquid crystal display twinkles at RES (Reserve), it shows that there is about 3.5 Liters (0.9 US gal) left in the tank.

FUEL

Manual Fuel Valve

The manual fuel valve (1) is under the left side of the fuel tank. Set it to ON for normal operation or RES when you start to run out of the main fuel supply. The OFF setting is only for long term storage or servicing of fuel system components.

Automatic Fuel ON-OFF

With the fuel valve set to ON (or RES) fuel flows to the carburetors only when the engine is being started or is running. A diaphragm shuts off fuel flow when the engine is turned off.

Reserve Fuel

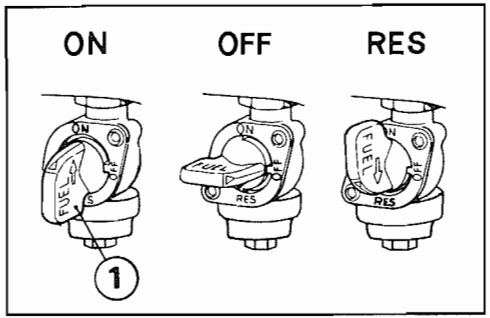
When the main fuel supply is gone, turn the fuel valve to RES. The reserve fuel supply is 2.5 ℓ (0.7 US gal) so refill the tank as soon as possible then switch the valve back to ON.

WARNING

* *Know how to operate the fuel valve while riding the motorcycle. You may avoid a sudden stop in traffic.*
* *Be careful not to touch any hot engine parts while operating the fuel valve.*

NOTE:

* Do not operate the machine with the fuel valve in the RES position after refueling. You may run out of fuel, with no reserve.



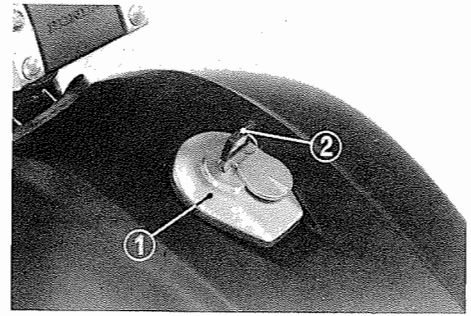
(1) Fuel valve in normal operating position

Fuel Tank

Fuel tank capacity is 13.0 ℓ (3.4 US gal) including 2.5 ℓ (0.7 US gal) in the reserve supply.

To open the fuel tank cap (1), insert the ignition key (2) and turn it clockwise. The cap is hinged and will lift up. Any automotive gasoline with a pump octane number ($\frac{R + M}{2}$) of 86 or higher or a research octane number of 91 or higher may be used. If "knocking" or "pinging" occurs, try a different brand of gasoline or a higher octane grade.

To close the fuel tank cap, press the cap into the filler neck until it snaps closed; the fuel tank cap locks automatically. Remove the key.



(1) Fuel tank cap
(2) Ignition key

WARNING

* *Gasoline is extremely flammable and is explosive under certain conditions. Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where the motorcycle is refueled or where gasoline is stored.*
* *Do not overfill the tank (there should be no fuel in the filler neck). After refueling, make sure the fuel cap is closed securely.*

ENGINE OIL

Engine Oil Level Check

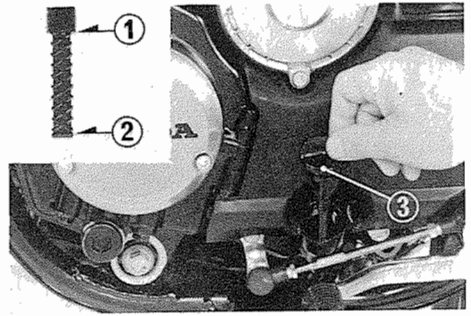
Check the engine oil level each day before riding the motorcycle.

The level must be maintained between the upper (1) and lower (2) level marks on the dipstick (3).

1. Start the engine and let it idle for a few minutes. Make sure the red oil pressure warning light goes off. If the light remains on, stop the engine immediately.
2. Stop the engine and put the motorcycle on its center stand on level ground.
3. After a few minutes, remove the oil filler cap/dipstick (3), wipe it clean, and reinsert the dipstick without screwing it in. The oil level should be between the upper (1) and lower (2) level marks on the dipstick.
4. If required, add the specified oil up to the upper level mark. Do not overfill.
5. Reinstall the oil filler cap/dipstick. Check for oil leaks.

CAUTION:

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



(1) Upper level mark
(2) Lower level mark
(3) Oil filler cap/dipstick

Engine Oil Recommendation

USE HONDA 4-STROKE OIL OR AN EQUIVALENT

Use only high detergent, premium quality motor oil certified to meet or exceed US automobile manufacturers' requirements for Service Classification SE or SF.

Motor oils intended for Service SE or SF will show this designation on the container.

The use of special oil additives is unnecessary and will only increase operating expenses.

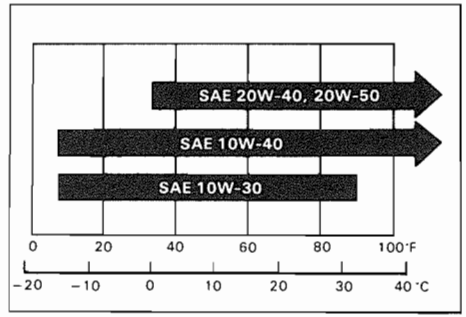
CAUTION:

* *Engine oil is a major factor affecting the performance and service life of the engine. Non-detergent, vegetable, or castor based racing oils, are not recommended.*

Recommended Oil Viscosity

SAE 10W-40

Other viscosities shown in the chart below may be used when the average temperature in your riding area is within the indicated range.



FINAL DRIVE OIL

Oil Level Check

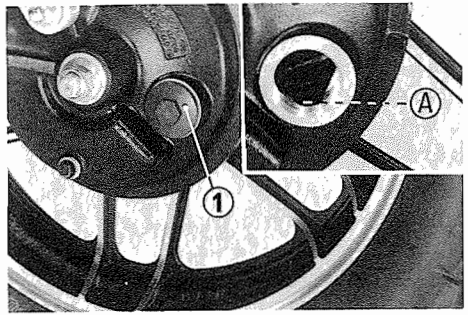
Check the final drive oil level when specified by the maintenance schedule.

1. Place the motorcycle on its center stand on level ground.
2. Remove the oil filler cap (1).
3. Check that the oil level reaches the lower edge of oil cap hole.

NOTE:

* If the level is low, check for leaks. Pour fresh oil through the oil filler opening until it reaches the lower edge of the opening.

Recommended oil: HYPOID GEAR OIL
SAE 90 (Above 5°C/41°F)
SAE 80 (Below 5°C/41°F)



(1) Oil filler cap (A) Oil level

PRE-RIDE INSPECTION

WARNING

* *If the Pre-ride Inspection is not performed, serious damage or an accident may result.*

Inspect your motorcycle every day before you start the engine. The items listed here will only take a few minutes, and in the long run they can save time, expense, and possibly your life.

1. Engine oil level–add engine oil if required (pages 28–29). Check for leaks.
2. Fuel level–fill fuel tank when necessary (page 26). Check for leaks.
3. Front and rear brakes–check operation; make sure there is no brake fluid leakage. Adjust free play if necessary (pages 67–70).
4. Tires–Check condition and pressure (pages 5–7).
5. Throttle–check for smooth opening and closing in all steering positions.
6. Lights and horn–check that headlight, tail/stoplight, turn signals, indicators and horn function properly.
7. Engine stop switch–check for proper function (page 22).

Correct any discrepancy before you ride. Contact your authorized Honda dealer for assistance if you cannot correct the problem.

STARTING THE ENGINE

WARNING

* ***Never run the engine in a closed area. The exhaust contains poisonous carbon monoxide gas.***

NOTE:

* 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.
* The electric starter will work when the transmission is in gear with the clutch disengaged.

PREPARATION

Make sure the transmission is in neutral, the engine stop switch is at RUN and the fuel valve is ON. Insert the key and turn the ignition switch ON.

Check that the red oil pressure warning light comes ON.

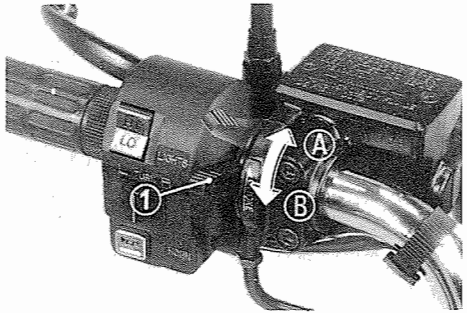
STARTING PROCEDURE

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

Normal Air Temperature

10°–35°C (50°–95°F)

1. Push the choke lever (1) forward all the way to Fully Open (A).
2. Start the engine, leaving the throttle closed.



(1) Choke lever (A) Fully Open (B) Fully Closed

NOTE:

* Do not open the throttle when starting the engine with the choke open. This will lean the mixture, resulting in hard starting.

CAUTION:

* *The red oil pressure warning light should go off a few seconds after the engine starts. If the light stays on, stop the engine immediately and check engine oil level. Do not operate the engine with isufficient oil pressure.*

3. About a half minute after the engine starts, pull the choke lever back all the way to Fully Closed (B).
4. If idling is unstable, open the throttle slightly.

High Air Temperature

35°C (95°F) or above

1. Do not use the choke.
2. Open the throttle slightly.
3. Start the engine.

Low Air Temperature

10°C (50°F) or below

1. Follow steps 1–2 under Normal Air Temperature.
2. Warm up the engine by opening and closing the throttle slightly.
3. Continue warming up until the engine runs smoothly and responds to the throttle when the choke lever is at Fully Closed (B).

CAUTION:

* *Idling at high rpm for more than about 5 minutes at normal air temperature may cause exhaust pipe discoloration.*
* *Extended use of the choke may impair piston and cylinder wall lubrication.*

Flooded Engine

If the engine fails to start after repeated attempts, it may be flooded with excess fuel. To clear a flooded engine, turn the engine stop switch OFF and pull the choke lever back to Fully Closed (B). Open the throttle fully and crank the engine for 5 seconds. Wait 10 seconds, then turn the engine stop switch ON and follow the "High Air Temperature" Starting Procedure.

BREAK-IN

During initial break-in, newly machined surfaces will be in contact with each other and these surfaces will wear in quickly. Break-in maintenance at 600 miles (1,000 km) is designed to compensate for this initial minor wear. Timely performance of break-in maintenance will ensure optimum service life and performance from the engine.

The general rules are as follows:

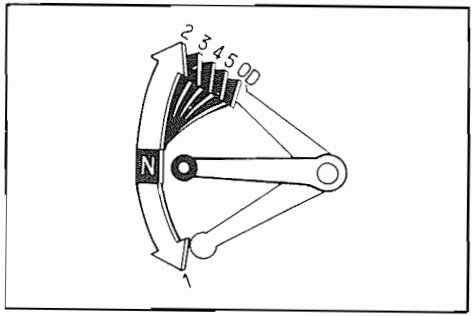
1. Bear in mind never to lug the engine with full throttle at low engine speeds. This rule is applicable not only during break-in but at all times.
2. Maximum continuous engine speed during the first 600 miles (1,000 km) must not exceed 5,000 rpm.
3. Increase the maximum continuous engine speed by 2,000 rpm between odometer readings of 600 miles (1,000 km) and 1,000 miles (1,600 km). Drive briskly, vary speeds frequently and use full throttle for short bursts only. Do not exceed 7,000 rpm.
4. Upon reaching an odometer reading of 1,000 miles (1,600 km), you can subject the motorcycle to full throttle operation.
   However, do not exceed 10,000 rpm at any time (tachometer RED ZONE limit).

NOTE: (USA ONLY)

* After break-in maintenance, remove the "BREAK-IN" caution label from the speedometer lens.

WARNING

* *Review Motorcycle Safety (pages 1–11) 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.*



Shifting pattern

Proper shifting will provide better fuel economy. When changing gears under normal conditions, use these recommended shift points:

Shifting Up:

From 1st to 2nd:	12 mph (20 km/h)
From 2nd to 3rd:	19 mph (30 km/h)
From 3rd to 4th:	25 mph (40 km/h)
From 4th to 5th:	31 mph (50 km/h)
From 5th to OD:	37 mph (60 km/h)

Shifting Down:

From OD to 5th:	28 mph (45 km/h)
From 5th to 4th:	22 mph (35 km/h)
From 4th to 3rd:	16 mph (25 km/h)

Disengage the clutch when speed drops below 9 mph (15 km/h), when engine roughness is evident, or when engine stalling is imminent; and shift down to 1st gear for acceleration.

WARNING

* *Do not downshift when travelling at a speed that would force the engine to overrev in the next lower gear, or cause the rear wheel to lose traction.*

CAUTION:

* *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 exceed 8,000 rpm when running the engine without a load. Serious engine damage may result.*

NOTE:

* The battery will not charge while the engine speed is below 1,500 rpm. Avoid idling for prolonged periods, or continuous operation below 1,500 rpm.

High Altitude Riding

When operating this motorcycle at high altitude, the air-fuel mixture becomes overly rich. Above 6,500 feet (2,000 m) driveability and performance may be reduced and fuel consumption increased. See your authorized Honda dealer for high altitude adjustments.

BRAKING

1. For normal braking, gradually apply both front and rear brakes while downshifting to suit your road speed.
2. For maximum deceleration, close the throttle and apply the front and rear brakes firmly. Disengage the clutch before the motorcycle stops.

WARNING

* *Independent use of only the front or rear brake reduces stopping performance. Extreme braking may cause either wheel to 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. Sudden 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, turn the ignition switch OFF.
2. Use the side or center stand to support the motorcycle while parked.

CAUTION:

* *Park the motorcycle on firm, level ground to prevent overturning.*

3. Lock the steering to help prevent theft.

NOTE:

* When stopping for a short time near traffic at night, the ignition switch may be turned to **P** and the key removed. This will turn on the taillight to make the motorcycle more visible to traffic. The battery will discharge if the ignition switch is left at P for too long a time.

ANTI-THEFT TIPS

1. Always lock the steering and never leave the key in the ignition switch. 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. Lock the steering (page 23).
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 which are still with them.

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ADDRESS: 5906 14-AVE.
BROOKLYN N.Y.
N.Y. 11204
PHONE NO.: (212) 236-5476

Mohsen Amirkalali
1154 Deal Road
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732-695-3311

SPECIAL PROCEDURES

These special procedures are intended to help you out in case of trouble on the road: a flat tire, or a blown fuse. In case of a flat tire, you can remove the entire wheel and take it to a qualified repair facility. Refer to "TIRES" on pages 5–7. Because of the critical nature of wheel attachment, you should proceed to an authorized Honda dealer as soon as possible after repiar to verify proper assembly.

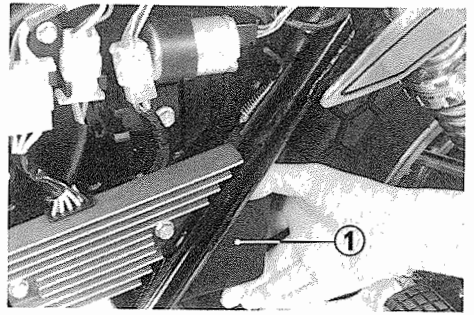
WARNING

* *Stop the engine and support the motorcycle securely on a level surface before performing these procedures.*

TOOL KIT

The tool kit (1) is in the storage compartment behind the left side cover. Some roadside repairs, minor adjustments and parts replacement can be performed with the tools contained in the kit.

- 10 x 12 mm open end wrench
- 14 x 17 mm open end wrench
- Pliers
- 6 mm hex wrench
- Screwdriver grip
- 24 mm box end wrench
- Handle for the box end wrench
- Spark plug wrench
- Feeler gauge 0.7 mm
- Tool bag
- No. 2 Plus minus driver
- Spare fuse (15A)
- Pin spanner



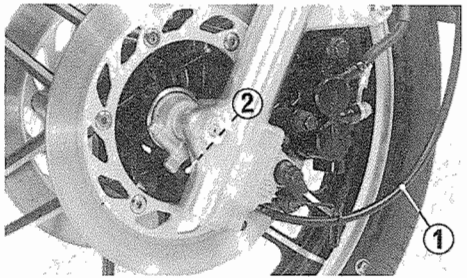
(1) Tool kit

FRONT WHEEL REMOVAL

1. Raise the front wheel off the ground by placing a support block under the engine.
2. Disconnect the speedometer cable (1) by removing the speedometer cable set screw (2).
3. Remove the right caliper assembly from the fork leg by removing the mounting bolts (4).

CAUTION:

* *Support the caliper assembly so that it doesn't hang on the hose. Do not twist the brake hose.*

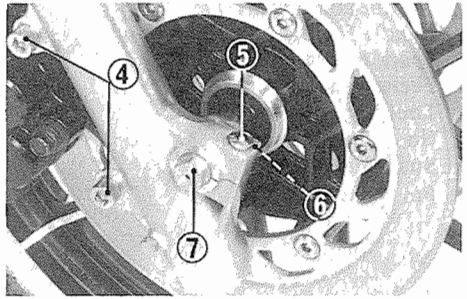


(1) Speedometer cable
(2) Speedometer cable set screw

4. Remove the cap and (5) the front axle holding bolt (6). Unscrew and pull out the front axle (7). Remove the front wheel.

NOTE:

* 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 authorized Honda dealer for this service.

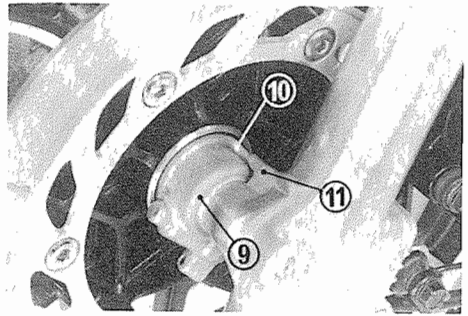


(4) Caliper mounting bolts (right side)
(5) Front axle holding cap
(6) Front axle holding nut
(7) Front axle

Installation Notes:

To install the front wheel assembly, insert the axle through the right fork leg and wheel hub, and screw it into the left fork leg. Make sure that the lug (10) on the speedometer gearbox (9) is against the rear of the tang (11) on the left fork leg and that the speedometer cable is connected to the gearbox. Tighten the axle to the specified torque.

Axle torque: 55–65 N·m (5.5–6.5 kg·m, 40–47 ft·lb).



(9) Speedometer gearbox
(10) Lug
(11) Tang

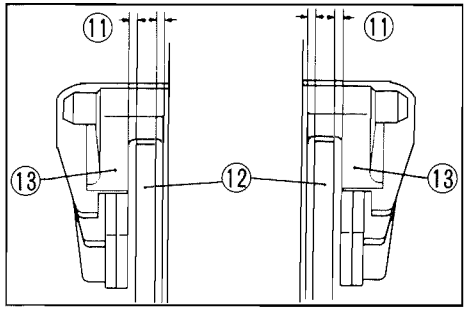
Fit the caliper over the disc, taking care not to damage the brake pads. Install the caliper mounting bolts and tighten to the recommended torque 30–40 N·m (3.0–4.0 kg-m, 22–29 ft-lb).

Measure the clearance (11) between each surface of the brake disc (12) and the caliper holder (13) with a 0.7 mm (0.028 in) feeler gauge (see sketch). If gauge (14) inserts easily, tighten the axle holding nut (6) to the specified torque. Axle holding nut: 15–25 N·m (1.5–2.5 kg-m, 11–18 ft-lb).

WARNING

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

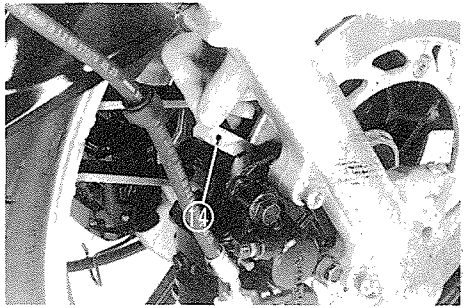
If the feeler gauge cannot be inserted easily, pull the forks outward or push inward until the gauge can be inserted and tighten the holding nut with the gauge inserted. After tightening, remove the gauge.
After installing the wheel, apply the brakes several times, then recheck both discs for caliper holder to disc clearance. Do not operate the motorcycle without adequate clearance.



(11) Clearance (13) Caliper holder
(12) Disc

WARNING

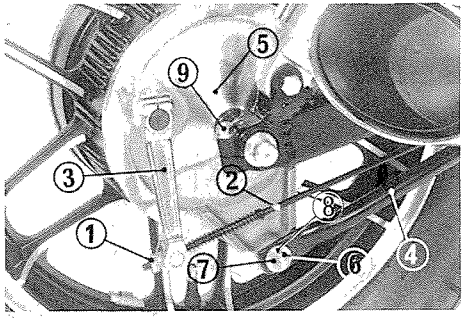
* *Failure to provide adequate disc to caliper holder clearance may damage the brake discs and impair braking efficiency.*



(14) Feeler gauge

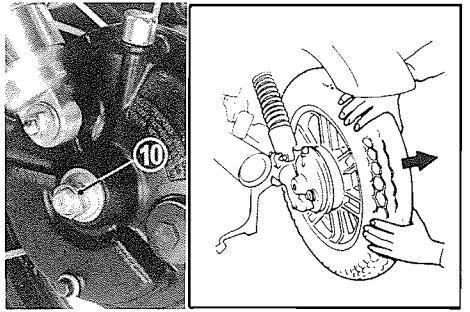
REAR WHEEL REMOVAL

1. Place the motorcycle on its center stand.
2. Remove the rear brake adjusting nut (1), disconnect the brake rod (2) from the brake arm (3).
3. Disconnect the stopper arm (4) from the brake panel (5) by removing the cotter pin (6), stopper arm nut (7), washer (8) and rubber grommet.



(4) Stopper arm (7) Stopperarm nut
(5) Brake panel (8) Washer
(6) Cotter pin (9) Axle holding bolt

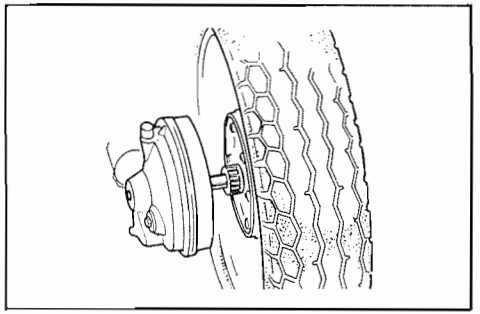
4. Remove the axle holding bolt (9).
5. Remove the axle nut (10).
6. Pull out the axle.
7. Move the wheel to the right to separate it from the final drive gear case.
8. Remove the rear wheel.



(10) Axle nut

Installation:

Reverse the removal procedure. Apply a lithium-based multipurpose grease with molybdenum disulfide additive to the rear hub splines and final drive gear splines when rear wheel is removed. Be sure the splines on the wheel hub fit into the final drive case and the splines on the final drive case fit into the driveshaft end.



- Torque for following bolts:
  Axle nut torque:
  60–80 N·m
  (6.0–8.0 kg-m, 43–58 ft-lb)
  Axle holding bolt torque:
  20–30 N·m
  (2.0–3.0 kg-m, 14–22 ft-lb)
  Brake panel stopper bolt torque:
  55–65 N·m
  (5.5–6.5 kg-m, 40–47 ft-lb)
- Apply the brake several times and check for free wheel rotation when released.

WARNING

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

CAUTION:

* *Always replace used cotter pins with new ones.*

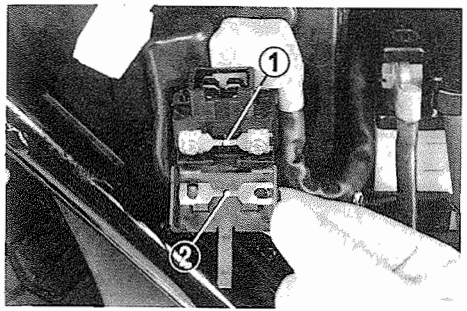
FUSE REPLACEMENT

The main fuse (1), located near the battery on the positive lead, is 30A.
The fuse box (3) is under the head light. Open the top compartment cover and remove the tool tray for access to fuses. The specified fuses (4) are 15A.
When frequent fuse failure occurs, it usually indicates a short circuit or an over-load in the electrical system. See your authorized Honda delaer for repair.

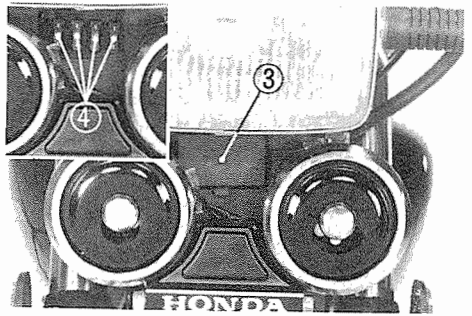
CAUTION:

* *Turn the ignition switch OFF before checking or replacing fuses to prevent accidental short-circuiting.*

To replace the main fuse (1), loosen the screws and remove the old fuse. Install the new fuse and tighten the screws securely.



(1) Main fuse (2) Spare main fuse

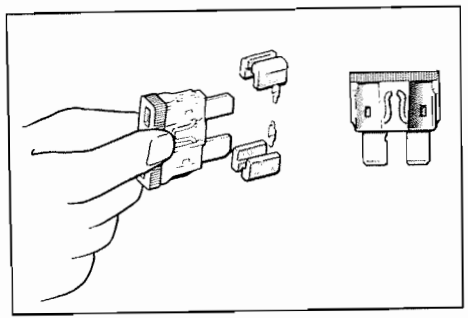


(3) Fuse box (4) Fuses

To replace fuses in the fuse box (3), remove the fuse box cover. Pull the old fuse with finger (out of the clips). Push a new fuse (into the clips) and install the fuse box cover.

WARNING

* *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 at night or in traffic.*



MAINTENANCE

- The U.S. Environmental Protection Agency and California Air Resources Board (CARB) require that your motorcycle comply with applicable exhaust emission standards during its useful life, when operated and maintained according to the instructions provided. Compliance with the terms of the Distributor's Warranties for Honda Motorcycle Emission Control System is necessary in order to keep the emissions system warranty in effect (USA only).

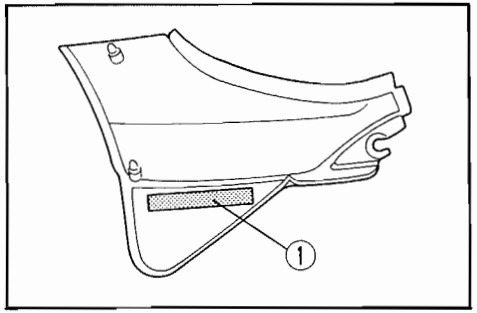
- When service is required, remember that your authorized Honda dealer knows your motorcycle best and is fully equipped to maintain and repair it.
  The scheduled maintenance may also be performed by a qualified service facility that normally does this kind of work; or you may perform most of the work yourself if you are mechanically qualified and have the proper tools and service data.

- 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 authorized Honda dealer for recommendations applicable to your individual needs and use.

WARNING

- *If your motorcycle is overturned or involved in a collision, inspect control levers, clutch and brake hoses and reservoirs, calipers, accessories, and other vital parts for damage. Do not ride the motorcycle if damage impairs safe operation. Have your Honda dealer inspect the major components including frame, suspension and steering parts, for misalignment and damage that you may not be able to detect.*
- *Stop the engine and support the motorcycle securely on a level surface before performing any maintenance.*
- *Use new, genuine Honda parts or their equivalent for maintenance and repair. Parts which are not of equivalent quality may impair the safety of your motorcycle and the effective operation of the emission control systems.*

The Vehicle Emission Control Information label is attached to the right side cover. (USA ONLY).



(1) Vehicle Emission Control Information label

MAINTENANCE SCHEDULE

Perform the Pre-ride Inspection (page 31) at each scheduled maintenance period.

I: INSPECT AND CLEAN, ADJUST, LUBRICATE OR REPLACE IF NECESSARY
C: CLEAN R: REPLACE A: ADJUST L: LUBRICATE

		ITEMS	FREQUENCY	WHICHEVER COMES FIRST	ODOMETER READING [NOTE (3)]						
				EVERY	600 mi (1,000 km)	4,000 mi (6,400 km)	8,000 mi (12,800 km)	12,000 mi (19,200 km)	16,000 mi (25,600 km)	20,000 mi (32,000 km)	24,000 mi (38,400 km)	Refer to
EMISSION RELATED ITEMS	*	FUEL LINES				I	I	I	I	I	I	
	*	FUEL STRAINER			C	C	C	C	C	C	C	
	*	THROTTLE OPERATION			I	I	I	I	I	I	I	
	*	CARBURETOR-CHOKE				I	I	I	I	I	I	
		AIR CLEANERS	NOTE (1)			C	R	C	R	C	R	Page 59
		CRANKCASE BREATHER	NOTE (2)			C	C	C	C	C	C	Page 61
		SPARK PLUGS				R	R	R	R	R	R	Page 58
		ENGINE OIL	YEAR		R	R	R	R	R	R	R	Pages 56–57
		ENGINE OIL FILTER	YEAR		R	R	R	R	R	R	R	Pages 57
	*	CARBURETOR-SYNCHRONIZATION			I	I	I	I	I	I	I	
	*	CARBURETOR-IDLE SPEED			I	I	I	I	I	I	I	Pages 60

		ITEMS \ FREQUENCY	WHICHEVER COMES FIRST → / EVERY ↓	ODOMETER READING [NOTE (3)] 600 mi (1,000 km)	4,000 mi (6,400 km)	8,000 mi (12,800 km)	12,000 mi (19,200 km)	16,000 mi (25,600 km)	20,000 mi (32,000 km)	24,000 mi (38,400 km)	Refer to
NON-EMISSION RELATED ITEMS		FINAL DRIVE OIL				I		I		R	Page 62
		BATTERY	MONTH	I	I	I	I	I	I	I	Pages 72–73
		BRAKE FLUID (FRONT)	MONTH I 2 YEARS *R	I	I	I	I	I	I	*R	Pages 67–68
		BRAKE SHOE/PAD WEAR			I	I	I	I	I	I	Page 68
		BRAKE SYSTEM		I	I	I	I	I	I	I	Pages 67–70
	*	BRAKE LIGHT SWITCH		I	I	I	I	I	I	I	
	*	HEADLIGHT AIM		I	I	I	I	I	I	I	
		CLUTCH FLUID	MONTH I 2 YEARS *R	I	I	I	I	I	I	*R	Pages 64–66
		CLUTCH SYSTEM		I	I	I	I	I	I	I	Pages 63–66
		SIDE STAND			I	I	I	I	I	I	Page 71
	*	SUSPENSION		I	I	I	I	I	I	I	
	*	NUTS, BOLTS, FASTENERS		I	I	I	I	I	I	I	
	**	WHEELS		I	I	I	I	I	I	I	
	**	STEERING HEAD BEARING		I		I		I		I	

** IN THE INTEREST OF SAFETY, WE RECOMMEND THESE ITEMS BE SERVICED ONLY BY AN AUTHORIZED HONDA DEALER.

* SHOULD BE SERVICED BY AN AUTHORIZED HONDA DEALER, UNLESS THE OWNER HAS PROPER TOOLS AND SERVICE DATA AND IS MECHANICALLY QUALIFIED. REFER TO THE OFFICIAL HONDA SHOP MANUAL.

NOTES: (1) Service more frequently when riding in dusty areas.
(2) Service more frequently when riding in rain, or at full throttle.
(3) For higher odometer reading, repeat at the frequency interval established here.

MAINTENANCE RECORD

Miles	Performed By	Odometer	Date
600			
4,000			
8,000			
12,000			
16,000			
20,000			
24,000			

- Make sure whoever performs the maintenance completes this record. All scheduled maintenance, including the 600 miles (1,000 km) break-in maintenance, is considered a normal owner operating cost and will be charged for by your dealer.
- Detailed receipts verifying the performance of required maintenance should be retained. These receipts should be transferred with the motorcycle to the new owner if the motorcycle is sold.

Engine Oil/Engine Oil Filter

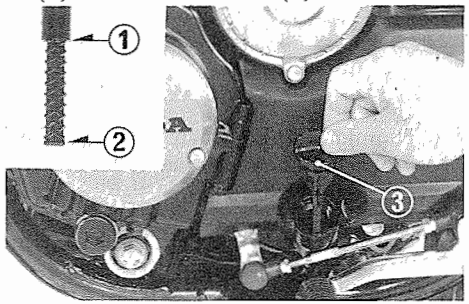
Engine Oil

Engine oil quality is the chief factor affecting engine service life. Change the engine oil when specified by the maintenance schedule.

NOTE:

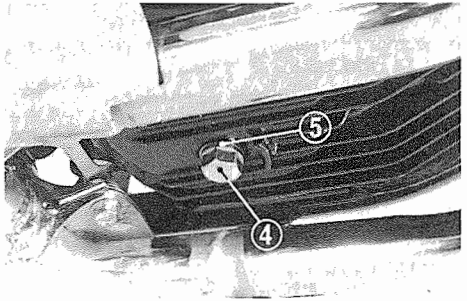
* Change engine oil with the engine warm and the motorcycle on its center stand to assure complete and rapid draining.

1. To drain the oil, remove the oil filler cap/dipstick (3), crankcase drain plug (4) and oil filter cover (7).



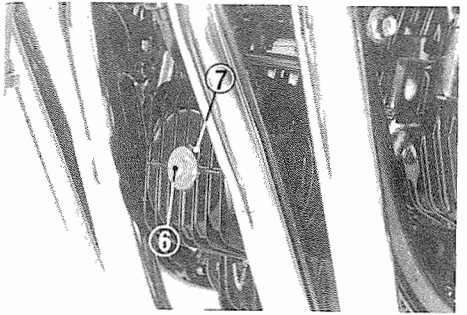
(1) Upper level mark (3) Oil filler cap/dipstick

2. After the oil has completely drained, check that the sealing washer (5) on the oil drain plug is in good condition and install the drain plug.
   Drain Plug Torque:
   30–40 N·m (3.0–4.0 kg-m, 22–29 ft-lb)
3. Check that the oil filter bolt (6) and cover O-rings are in good condition and install the cover.
   Oil Filter Bolt Torque:
   28–32 N·m (2.8–3.2 kg-m, 20–23 ft-lb)



(4) Oil drain plug (5) Sealing washer

4. Fill the crankcase with approximately 3.2 liters (3.4 US qt) of the recommended grade oil.
5. Install the oil filler cap/dipstick (3).
6. Start the engine and let it idle for 2–3 minutes.
7. Stop the engine and check that the oil level is at the upper level mark (1) on the dipstick. Make sure there are no oil leaks.



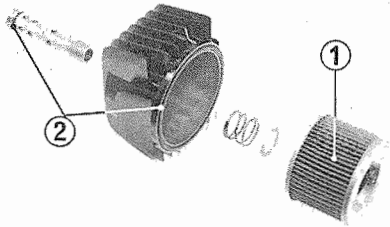
(6) Oil filter bolt (7) Oil filter cover

Engine Oil Filter

NOTE:

* Change the filter after draining the engine oil.

1. Remove the oil filter element (1) from the cover.
2. Check that the O-rings (2) on the oil filter bolt and cover are in good condition.
3. Insert a new oil filter element. Check that all parts are installed as shown. Install the oil filter cover.
   Oil Filter Bolt Torque: 28–32 N·m (2.8–3.2 kg-m, 20–23 ft-lb)
4. Perform steps 4–7 of Engine Oil Change.



(1) Oil filter element (2) O-rings

SPARK PLUGS

Recommended plugs:

Standard:
DPR8EA-9 (NGK) or
X24EPR-U9 (ND)

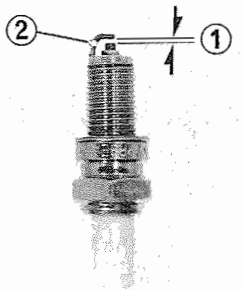
For cold climate: (Below 5°C/41°F)
DPR7EA-9 (NGK) or
X22EPR-U9 (ND)

For extended high speed riding:
DPR9EA-9 (NGK) or
X27EPR-U9 (ND)

1. Disconnect the spark plug caps.
2. Clean any dirt from around the spark plug bases.
3. Remove and discard the spark plugs.
4. Make sure the new spark plug gap (1) is 0.8–0.9 mm (0.031–0.035 in) using a wire-type feeler gauge. If adjustment is necessary, bend the side electrode (2) carefully.
5. With the plug washers attached, thread the new spark plugs in by hand to prevent cross-threading.
6. Tighten the spark plugs 1/2 turn with a spark plug wrench to compress the washer.
7. Reinstall the spark plug caps.

CAUTION:

* *The spark plug must be securely tightened. An improperly tightened plug can become very hot and possible damage the engine.*
* *Never use a spark plug with an improper heat range.*

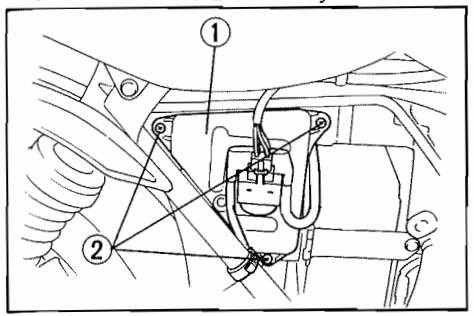


(1) Spark plug gap (2) Side electrode

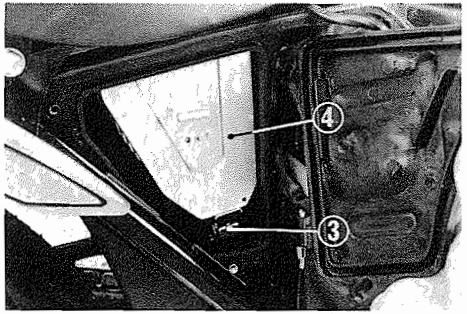
AIR CLEANERS

The air cleaners should be serviced at regular intervals (page 54). When riding in dusty areas, more frequent service may be necessary.

1. Remove the right side cover and wire band.
2. Remove the air cleaner cover (1) by removing the three screws (2). Pull out the set spring (3) and element (4).
3. Clean the element by tapping it lightly to loosen dust. Blow away the remaining dust by applying compressed air to the outside of the element. Replace the element if it is excessively dirty, torn or damaged.
4. Reinstall the element, set spring and air cleaner cover, and wire band.



(1) Air cleaner cover (2) Screws



(3) Set spring (4) Element

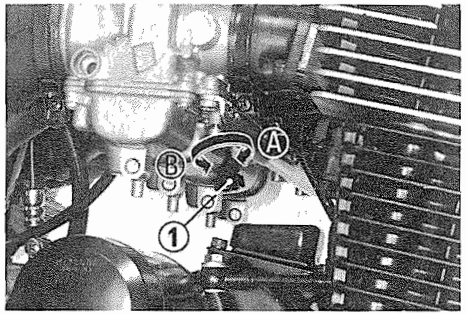
IDLE SPEED

The idle speed adjustment procedure given here should only be used when changes in altitude affect normal idle speed as set by your dealer. See your authorized Honda dealer for regularly scheduled carburetor adjustments, including individual carburetor adjustment and synchronization.

NOTE:

* The engine must be warm for accurate idle speed adjustment. Ten minutes of stop-and-go riding is sufficient.

1. Warm up the engine, shift to neutral and place the motorcycle on its center stand.
2. Adjust idle speed with the throttle stop screw (1).
   Idle Speed: 1,100 ± 100 rpm
   (In neutral)



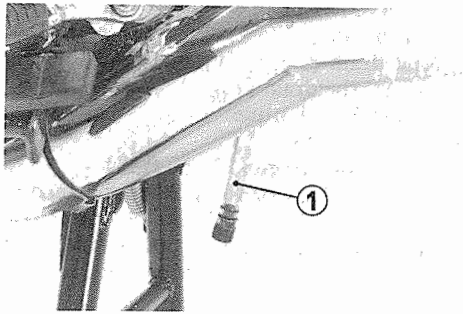
(1) Throttle stop screw (A) Increase (B) Decrease

CRANKCASE BREATHER

1. Remove the drain plug (1) from the tube and drain deposits.
2. Reinstall the drain plug.

NOTE:

* Service more frequently when ridden in rain, at full throttle. Service if the deposit level can be seen in the transparent section of the drain tube.



(1) Drain plug

FINAL DRIVE OIL

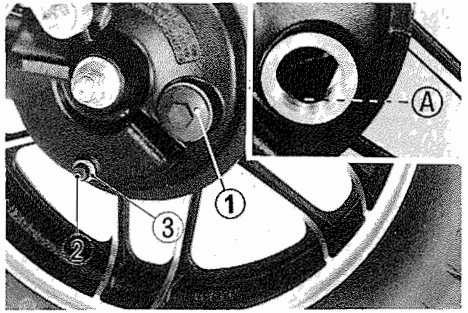
Change the oil when specified by the maintenance schedule.

NOTE:

* Change the oil with the final drive warm and the motorcycle on its center stand to assure complete and rapid draining.

1. To drain the oil, remove the oil filler cap (1) and drain plug (2).
2. After the oil has completely drained, check that the sealing washer (3) on the drain plug is in good condition and install the drain plug.
   Drain Plug Torque:
   10–14 N·m
   (1.0–1.4 kg-m, 7–10 ft-lb)
3. Fill the final drive with approximately 170 cc (0.56 oz) of the recommended oil. Make sure the recommended oil is filled up to the lower edge of the inspection hole (A).
4. Install the oil filler cap.

Recommended oil: HYPOID GEAR OIL
SAE90 (Above 5°C/41°F)
SAE80 (Below 5°C/41°F)



(1) Oil filler cap
(2) Oil drain plug
(3) Sealing washer
(A) Inspection hole

CLUTCH

This motorcycle has a hydraulically activated clutch. There are no adjustments to perform but the clutch system must be inspected periodically for fluid level and leakage. If the control lever free play becomes excessive and the motorcycle creeps or stalls when shifted into gear, or if the clutch slips, causing acceleration to lag behind engine speed, there is probably air in the clutch system and it must be bled out. See your authorized Honda dealer for this service.

Fluid Level:

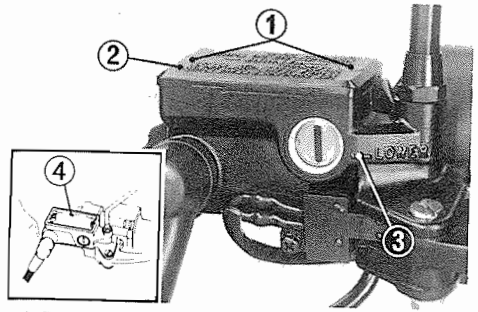
Whenever the level is near the lower level mark (3) on the reservoir, fluid must be added. Remove the screws (1), reservoir cover (2) and diaphragm. Fill the reservoir with DOT 3 BRAKE FLUID from a sealed container up to the upper level mark (4). Reinstall the diaphragm and cover (2). Tighten the screws (1) securely.

WARNING

* *Brake fluid may cause irritation. Avoid contact with skin or eyes. In case of contact, flush thoroughly with water and call a doctor if your eyes were exposed.*

CAUTION:

* *When adding brake fluid, be sure the reservoir is horizontal before the cover is removed or brake fluid may spill out.*



(1) Screws
(2) Reservoir cover
(3) Lower level mark
(4) Upper level mark

* *Use only DOT 3 brake fluid from a sealed container.*
* *Handle brake fluid with care because it can damage paint and instrument lenses.*
* *Never allow contaminants (dirt, water, etc.) to enter the clutch reservoir.*

Other Checks:

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

FRONT BRAKE

This motorcycle has hydraulic disc front brakes. As the brake pads wear, brake fluid level drops, automatically compensating for wear.

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 brake lever free travel becomes excessive and the brake pads are not worn beyond the recommended limit there is probably air in the brake system and it must be bled out. See your authorized Honda dealer for this service.

Brake Fluid Level:

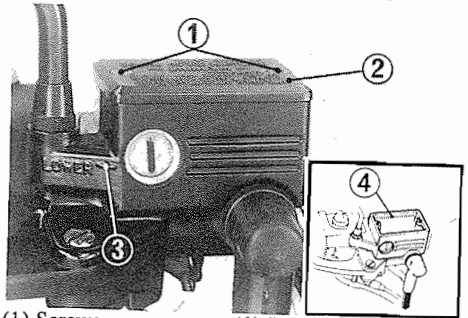
WARNING

* *Brake fluid may cause irritation. Avoid contact with skin or eyes. In case of contact, flush thoroughly with water and call a doctor if your eyes were exposed.*

Remove the screws (1), reservoir cover (2), and diaphragm. Whenever the level is near the lower level mark (3) on the reservoir, fill the reservoir with DOT 3 BRAKE FLUID from a sealed container up to the upper level mark (4). Reinstall the diaphragm and cover (2). Tighten the screws (1) securely.

CAUTION:

* *When adding brake fluid be sure the reservoir is horizontal before the cover is removed or brake fluid may spill out.*



(1) Screws
(2) Reservoir cover
(3) Lower level mark
(4) Upper level mark

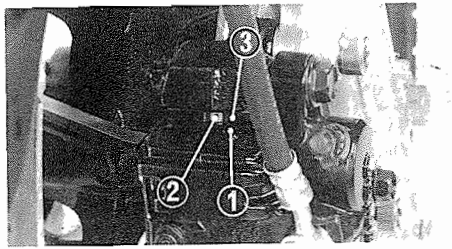
* *Use only DOT 3 brake fluid from a sealed container.*
* *Handle brake fluid with care because it can damage paint and instrument lenses.*
* *Never allow contaminants (dirt, water, etc.) to enter the brake fluid reservoir.*

Brake Pads:

Brake pad wear will depend upon the severity of usage, type of riding, and condition of the roads. The pads will wear faster on dirty and wet roads. Inspect the pads visually from the direction indicated by the arrow (1) during all regular service intervals to determine the pad wear. If either pad wears to the line (3), both pads must be replaced as a set.

Other Checks:

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

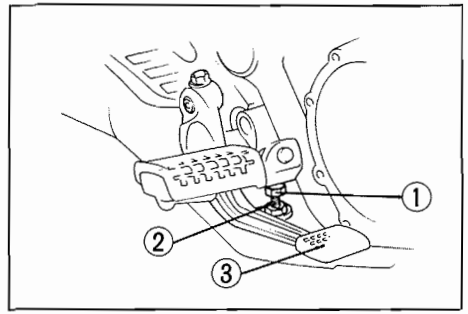


(1) Arrow
(2) Brake disc
(3) Line

REAR BRAKE

Adjustment:

1. Place the motorcycle on its center 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.
3. Measure the distance the rear brake pedal (3) moves before the brake starts to take hold.

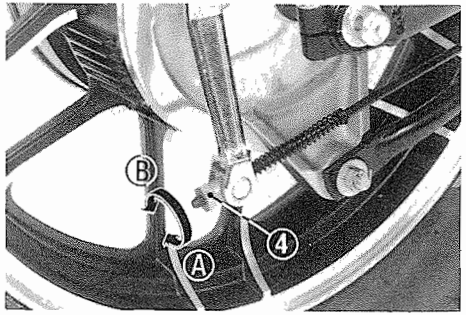


(1) Stopper bolt
(2) Lock nut
(3) Rear brake pedal

Free play should be 20–30 mm (3/4–1-1/4 in). If adjustment is necessary, turn the rear brake adjusting nut (4).

NOTE:

* Make sure the cut-out on the adjusting nut is seated on the brake arm pin.
* If proper adjustment cannot be obtained by this method, see your authorized Honda dealer.



(4) Adjusting nut
(A) Decrease free play
(B) Increase free play

4. Apply the brake several times and check for free wheel rotation when released.

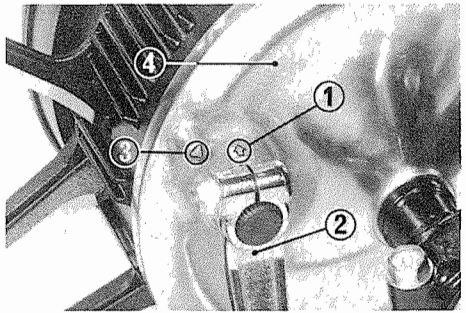
Other Checks:

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

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).

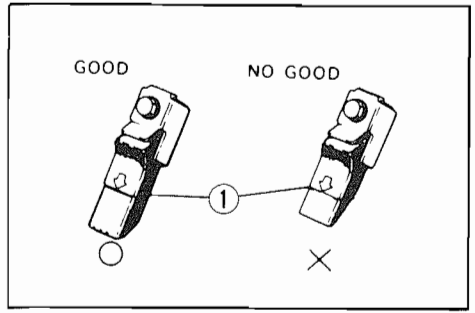
If the arrow aligns with the reference mark on full application of the brake, the brake shoes must be replaced.



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

SIDE STAND

Check the rubber pad for deterioration and wear. Replace if wear extends to the wear line (1) as shown. Check the side stand spring for damage and loss of tension, and the side stand assembly for freedom of movement. See your authorized Honda dealer for replacement.



(1) Wear line

BATTERY

If the motorcycle is operated with insufficient battery electrolyte, sulfation and battery plate damage will occur.
If rapid loss of electrolyte is experienced, or if your battery seems to be weak, causing slow starting or other electrical problems, see your authorized Honda dealer.

Battery electrolyte:

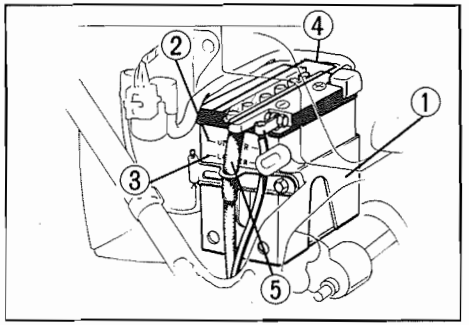
The battery (1) is behind the right side cover. Remove the side cover. Check the electrolyte level.
The electrolyte level must be maintained between the upper (2) and lower (3) level marks on the side of the battery. If the electrolyte level is low, remove the battery filler caps (4).
Carefully add distilled water to the upper level mark, using a small syringe or plastic funnel.

CAUTION:

* *When checking the battery electrolyte level or adding distilled water, make sure the breather tube (5) is connected to the battery breather outlet.*

NOTE:

* Use only distilled water in the battery. Tap water may shorten the service life of the battery.



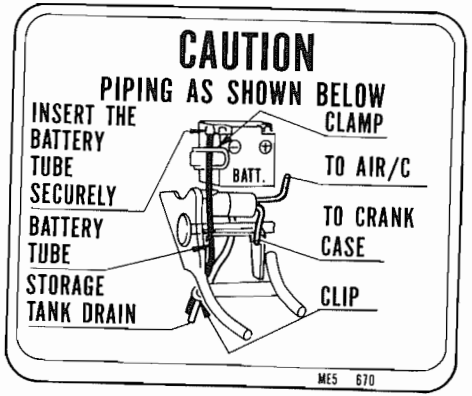
(1) Battery
(2) Upper level mark
(3) Lower level mark
(4) Filler caps
(5) Breather tube

WARNING

* *The battery contains sulfuric acid. Avoid contact with skin, eyes or clothing. Antidote: EXTERNAL-Flush with water. INTERNAL-Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Call physician immediately. Eyes: Flush with water and get prompt medical attention.*
* *Batteries produce explosive gases. Keep sparks, flames and cigarettes away. Ventilate when charging or using in enclosed space. Always shield eyes when working near batteries.*
* *KEEP OUT OF REACH OF CHILDREN.*

CAUTION:

* *The battery breather tube must be routed as shown on the label. Do not bend or twist the breather tube. A bent or kinked breather tube may pressurize the battery and damage its case.*



Clean your motorcycle regularly to protect the surface finishes and inspect for damage, wear, and oil, coolant or hydraulic fluid seepage.

CAUTION:

* *Avoid spraying high pressure water (typeical in coin-operated car washes) at the following areas:*

Wheel Hubs	*Ignition Switch*
Carburetors	*Brake Master Cylinder*
Instruments	*Clutch Master Cylinder*
Handlebar-switches	*Muffler Outlets*
	Under Fuel Tank
	Under Seat

1. After cleaning, rinse the motorcycle thoroughly with plenty of clean water. Strong detergent residue can corrode alloy parts.
2. Dry the motorcycle, start the engine, and let it run for several minutes.

WARNING

* *Braking performance may be impaired immediately after washing the motorcycle.*

3. Test the brakes before riding the motorcycle. Several applications may be necessary to restore normal braking performance.

Aluminum Wheel Care

Aluminum carrodes when it cames in contact with dust, mud, road salt, etc. After riding, clean the wheels with a wet sponge and mild detergent, then rinse well with water and wipe dry with a clean cloth.

CAUTION:

* *Do not use steel wool or a cleaner containing abrasives or compounds to clean the wheels, as they can cause damage.*
* *Do not ride over a curb or rub the wheel against on obstacle, as wheel damage may result.*

STORAGE

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.

1. Change the engine oil and filter.
2. Drain the fuel tank and carburetors. Spray the inside of the tank with an aerosol rust-inhibiting oil.
   Reinstall the fuel cap on the tank.

WARNING

* *Gasoline is flammable and is explosive under certain conditions. Do not smoke or allow flames or sparks near the equipment while draining fuel.*

3. Remove the spark plugs and pour a tablespoon (15–20 cc) of clean engine oil into each cylinder. Crank the engine several times to distribute the oil, then reinstall the spark plugs.

NOTE:

* When turning the engine cover, the Engine Stop Switch should be OFF and each spark plug placed in its cable cap and grounded to prevent damage to the ignition system.

5. Remove the battery. Store in an area protected from freezing temperatures and direct sunlight. Check the electrolyte level and slow charge the battery once a month.
6. Wash and dry the motorcycle. Wax all painted surfaces. Coat chrome with rust-inhibiting oil.
7. Inflate the tires to their recommended pressures. Place the motorcycle on blocks to raise both tires 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. Change the engine oil if more than 4 months have passed since the start of storage.
2. Check the battery electrolyte level and charge the battery as required. Install the battery.
3. Drain any excess aerosol rust-inhibiting oil from the fuel tank. Fill the fuel tank with fresh gasoline.
4. Check the final drive oil, adding the recoomended gear oil if necessary. Change the final drive oil as specified by the Maintenance Schedule. Perform all Pre-ride Inspection checks (page 31). Test ride the motorcycle at low speeds in a safe riding area away from traffic.

EMISSION CONTROL SYSTEM (USA ONLY)

- **Source of Emissions**

The combustion process produces carbon monoxide and hydrocarbons. Control of hydrocarbons is very important because under certain conditions, they react to from photochemical smog when subjected to sunlight. Carbon monoxide does not react in the same way, but it is toxic.
Honda Motor Co., Ltd. utilizes lean carburetor settings and other systems to reduce carbon monoxide and hydrocarbons.

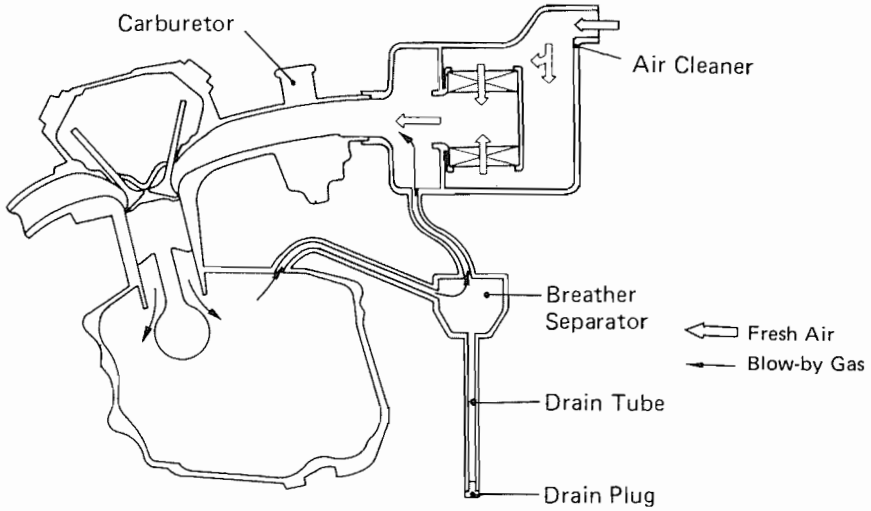
- **Exhaust Emission Control System**

The exhaust emission control system is composed of lean carburetor settings, and no adjustments should be made except idle speed adjustment with the throttle stop screw. The exhaust emission control system is separate from the crankcase emission control system.

• Crankcase Emission Control System

The engine is equipped with a closed crankcase system to prevent discharging emissions into the atmosphere.

Blow-by gas is returned to the combustion chamber through the breather separator, air cleaner and carburetor.



• Problems Which May Affect Motorcycle Emissions

If you are aware of any of the follwing symptoms, have the vehicle inspected and repaired by your local Honda Motorcycle Dealer.

Symptoms:

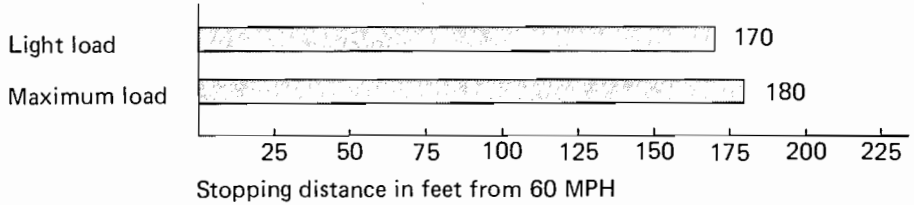
1. Hard starting or stalling after starting
2. Rough idle
3. Misfiring or backfiring during acceleration
4. After-burning (backfiring)
5. Poor performance (driveability) and poor fuel economy

VEHICLE STOPPING DISTANCE

This figure indicates braking performance that can be met or exceeded by the vehicles to which it applies, under different conditions of loading. The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions. And the information may not be correct under other conditions.

Description of vehicles to which this table applies: HONDA MOTORCYCLE: CB650SC Nighthawk

Fully operational service brake



Item	
DIMENSIONS	
Overall length	2,140 mm (84.3 in)
Overall width	805 mm (31.7 in)
Overall height	1,145 mm (45.1 in)
Wheelbase	1,460 mm (57.5 in)
WEIGHT	
Dry weight	197 kg (434 lbs)
CAPACITIES	
Engine oil	3.2 ℓ (3.5 US qt) After draining
Fuel tank	13 ℓ (3.4 US gal)
Fuel reserve tank	2.5 ℓ (0.7 US gal)
Passenger capacity	Operator and one passenger
Vehicle capacity load	161 kg (355 lbs)
ENGINE	
Bore and stroke	60 x 58 (2.362 x 2.283 in)
Compression ratio	9.5 : 1
Displacement	656 cc (40.0 cu.in)

Item	
Spark plug	
Standard	X24EPR-U9 (ND) or DPR8EA-9 (NGK)
For cold climate: (Below 5°C, 41°F)	X22EPR-U9 (ND) or DPR7EA-9 (NGK)
Spark plug gap	0.8–0.9 mm (0.031–0.035 in)
Idle speed	1,100 ± 100 rpm

Item	
CHASSIS AND SUSPENSION	
Caster	28°30'
Trail	98 mm (3.9 in)
Tire size, front	100/90-19-57H
Tire size, rear	130/90-16-67H
POWER TRANSMISSION	
Primary reduction	1.704
Final reduction	1.125/3.091
Gear ratio, 1st	2.769 : 1
2nd	1.850 : 1
3rd	1.429 : 1
4th	1.154 : 1
5th	0.966 : 1
OD	0.821 : 1

Item		
ELECTRICAL		
Battery	12V-12AH	
Alternator	0.280 kW/5,000 rpm	
LIGHTS		
Headlight (HIGH/LOW)	12V–60/55W	H4 BULB (Phillips 12342/99 or equivalent)
Tail/stoplight	12V–3/32 cp	SAE NO. 1157
Turn signal	12V–32 cp	SAE NO.: FRONT 1034 REAR 1073
Instrument	12V–2 cp	SAE NO. 57
Neutral indicator	12V-2CP	
Turn signal indicator	12V-2CP	
High beam indicator	12V-2CP	
Oil pressure warning light	12V-2CP	
Position	12V–3 cp	SAE NO. 1034
FUSE	15A (Headlight, taillight and instrument light) 30A (Main fuse)	

OWNER SATISFACTION

Your satisfaction and goodwill are important to your dealer and to us. Normally, any problems with the operation of your vehicle will be handled by your dealer's Service Department. Sometimes, however, despite the best intentions of all concerned, misunderstandings can occur. If your problem has not been handled to your satisfaction, we suggest you take the following action:

* Discuss your problem with a member of dealership management. Often complaints can be quickly resolved at that level. If the problem has already been reviewed with the Service Manager, contact the owner of the dealership or the General Manager.
* If your problem still has not been resolved to your satisfaction, contact the Motorcycle Customer Service Department, AMERICAN HONDA MOTOR CO., INC., 100 West Alondra Boulevard, Gardena, California 90247 (213) 327-8280, and provide them with:
  - Your name, address and telephone number
  - Vehicle frame number
  - Dealer's name and location
  - Vehicle delivery date and present mileage
  - Nature of problem

After reviewing all the facts involved, you will be advised of what action can be taken.

Please bear in mind that your problem will likely be resolved in the dealership, using the dealer's facilities, equipment and personnel. So it is very important that your initial contact be with the dealer.

Your purchase of a Honda product is greatly appreciated by both your dealer and American Honda Motor Co., Inc. We want to assist you in every way possible to assure your complete satisfaction with your purchase.

HONDA MOTOR CO., LTD.

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