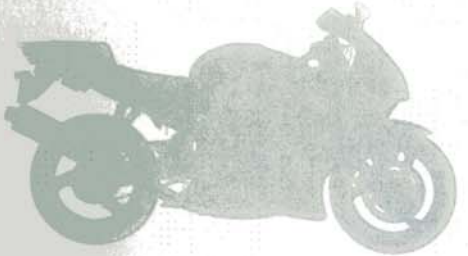
31MG1000
PRINTED IN USA

HONDA

1983

Owner's Manual



CB1000

HONDA CB1000 CUSTOM
OWNER'S MANUAL

1983

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31MG1000

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. 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 many 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 33) 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 all accessories must not exceed 475 lbs, 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 (TIRES, pages 5–7), front fork air pressure and rear shock absorber air pressure (SUSPENSION, pages 8–10) 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 non-Honda 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 pressure frequently and adjust if necessary.

NOTE:

* Check tire pressure 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 punctures, especially if the tire is not fully inflated.

Dry weight	kg (lbs)	265 (584)
Curb weight (wet)	kg (lbs)	281.5 (621)
Gross vehicle weight rating	kg (lbs)	497 (1095)
Vehicle capacity load	kg (lbs)	215 (475)

		Front	Rear
Tire size		110/90–18 62H M110/90–18	140/90–16 67H M140/90–16
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, 2.8)
Tire brand TUBELESS ONLY DUNLOP		F11	K127C

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)

Tire Repair/Replacement:

See your authorized Honda Dealer.

WARNING

* *The use of tires other than those listed here 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.*

WARNING

* *Do not exceed 50 mph for the first 24 hours after tire repair, or repaire failure and tire deflation may result. Never use a repaired tire at speeds over 80 mph.*
* *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

The front and rear suspension of this motorcycle can provide the desired ride under various rider/cargo weights and riding conditions through adjustment of the air pressure.

The recommended pressures under normal conditions are:

Front 6–14 psi
(40–100 kPa, 0.4–1.0 kg/cm²)

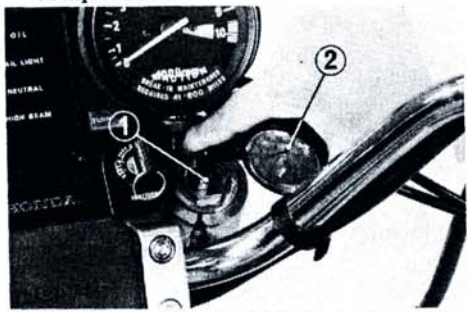
Rear 0–57 psi
(0–400 kPa, 0–4,0 kg/cm²)

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.

Front Air Pressure	Rear Air Pressure	Conditions	
		Rider/ Load	Riding Conditions
6 psi (40 kPa, 0.4 kg/cm²)	0 psi (0 kPa, 0 kg/cm²)	One	Ordinary or city road riding
↕	↕	↕	↕
14 psi (100 kPa, 1.0 kg/cm²)	57 psi (400 kPa, 4.0 kg/cm²)	Up to vehicle capacity load	Rough road riding

Check and adjust air pressure when the front fork tubes and rear shock absorbers are cold before riding.

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 and rear shock absorber air valve cap from the air valves (1).
3. Check the air pressure using the pressure gauge (2) supplied in the storage compartment.

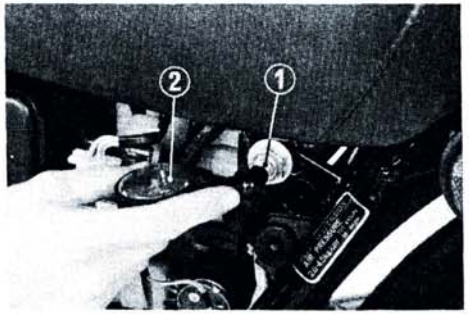


(FRONT) (1) Air valve (2) Air pressure gauge

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.



(REAR) (1) Air valve (2) Air pressure gauge

CAUTION:

* *Do not exceed 42 psi (300 kPa, 3.0 kg/cm²) or the air pressure gauge may be damaged.*

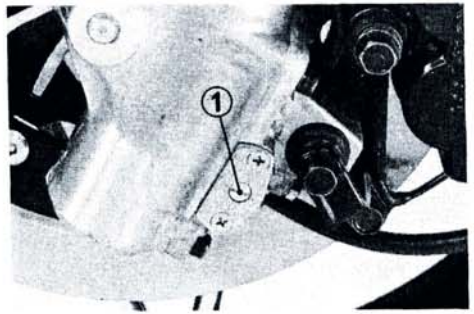
NOTE:

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

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

The T.R.A.C. system reduces nose-dive during braking and may be adjusted to the rider's choice, independent of load or the rider's weight. The adjuster (1) is located on the side of the left front fork and can be set to any one of four positions.

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



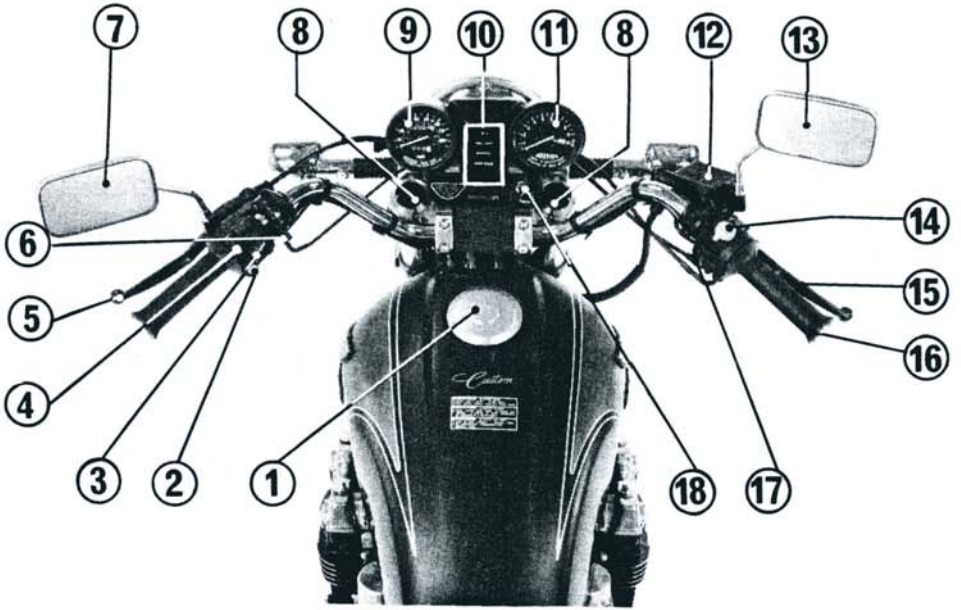
(1) Anti-dive adjuster

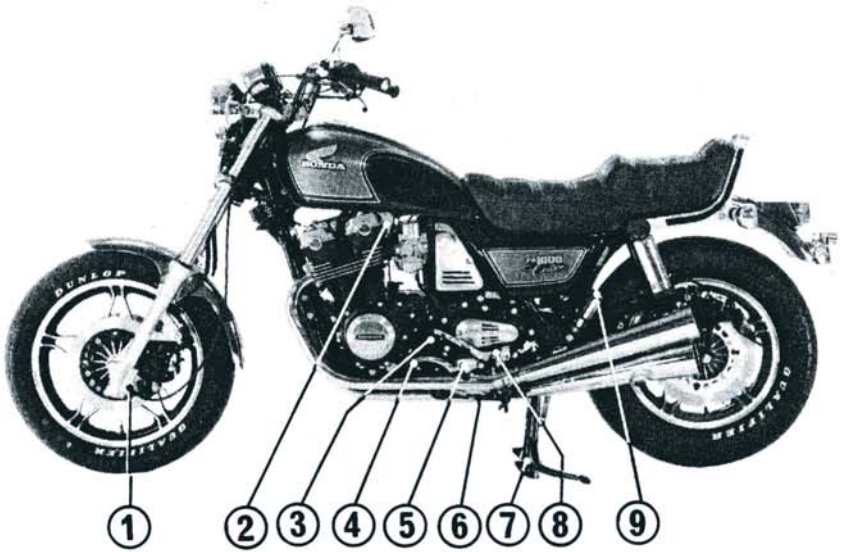
WARNING

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

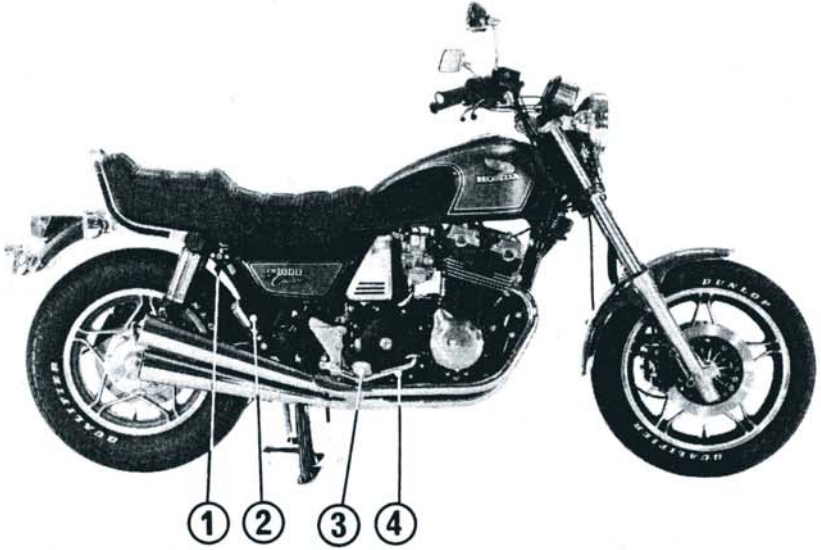
PARTS LOCATION

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





(1) T.R.A.C. anti-dive adjuster
(2) Fuel valve
(3) Oil filler cap/dipstick
(4) Gearshift pedal
(5) Footpeg
(6) Side stand
(7) Center stand
(8) Dual range shift pedal
(9) Passenger footpeg



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

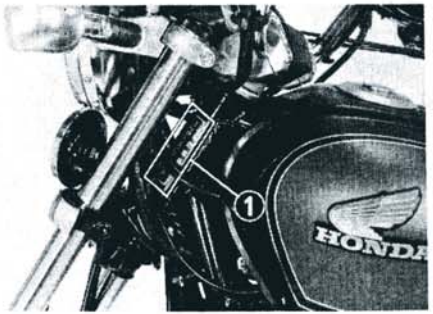
SERIAL NUMBERS

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.

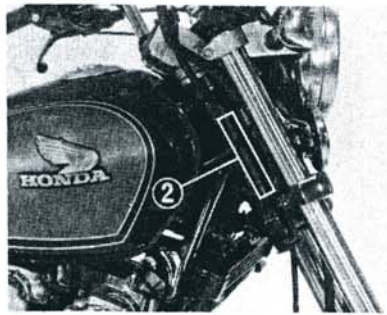
The VIN, Vehicle Identification Number (1) is on the Safety Certification Label affixed to the left side of the steering head. This number is the same as the frame number (2) stamped on the right side of the steering head.

VIN _____

FRAME NO. _____



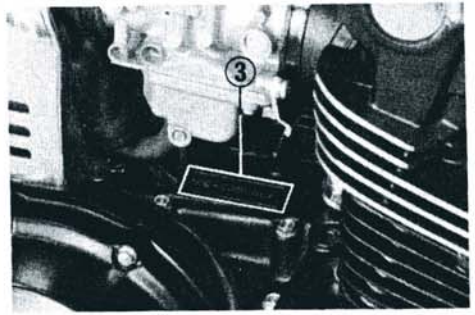
(1) VIN



(2) Frame number

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

ENGINE NO. _____



(3) Engine number

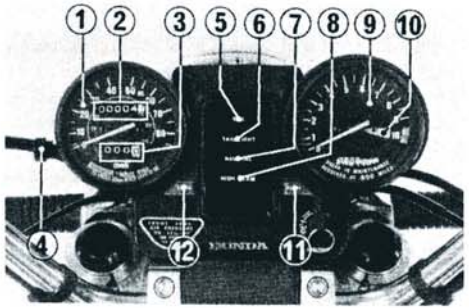
PARTS FUNCTION

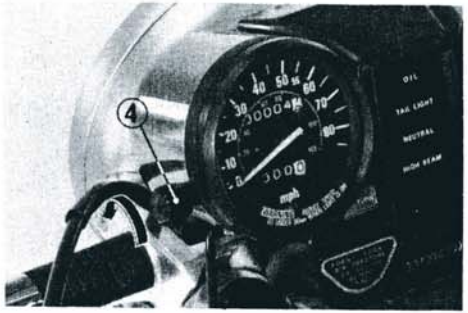
Instruments and Indicators

The indicators and warning lights are grouped between 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) Speedometer
(2) Odometer
(3) Tripmeter
(4) Tripmeter reset knob
(5) Oil pressure warning light
(6) Tail/stoplight warning light
(7) Neutral indicator
(8) High beam indicator
(9) Tachometer
(10) Tachometer red zone
(11) Right turn signal indicator
(12) Left turn signal indicator





Ref. No.	Description	Function
1	Speedometer	Shows riding speed.
2	Odometer	Shows accumulated mileage.
3	Tripmeter	Shows mileage per trip.
4	Tripmeter reset knob	Resets tripmeter to zero (0). Turn knob in direction shown.
5	Oil pressure warning light (red)	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 near idling speed when engine is warm. **CAUTION:** * *Running the engine with insufficient oil pressure will cause serious engine damage.*
6	Tail/stoplight warning light	Lights when the tail/stoplight bulb is burned out. Should light for a few seconds and go out when ignition switch is turned ON.
7	Neutral indicator (green)	Lights when transmission is in neutral.
8	High beam indicator (blue)	Lights when headlight is on high beam.

Ref. No.	Description	Function
9	Tachometer	Shows engine rpm.
10	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 damege.*
11	Right turn signal indicator (amber)	Flashes when the right turn signal operates.
12	Left turn signal indicator (amber)	Flashes when the left turn signal operates.

Ignition Switch

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

(1) Ignition switch

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

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.

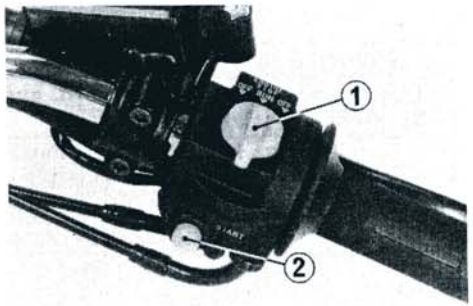
NOTE:

* If your motorcycle is stopped with the ignition switch ON and the engine stop switch OFF, the headlight, taillight and license plate light 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 and the headlight will automatically go out during starting, but the taillight will stay on. See page 34 for the starting procedure.



(1) Engine stop switch (2) Starter button

The three controls next to the left handlebar grip are:

Headlight Dimmer Switch (1)

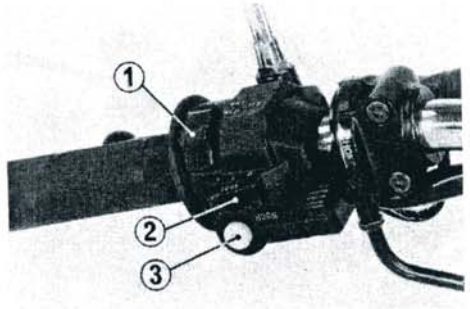
Select Hi for high beam, Lo for low beam.

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.



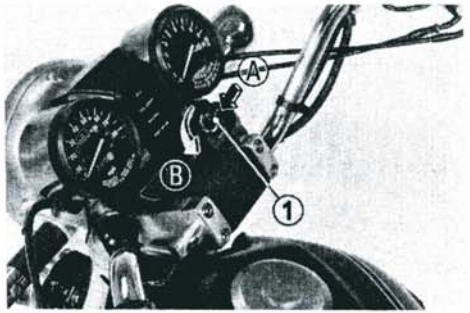
(1) Headlight dimmer switch
(2) Turn signal switch
(3) Horn button

Steering Lock

To lock the steering, turn the handlebars all the way to the left or right, 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

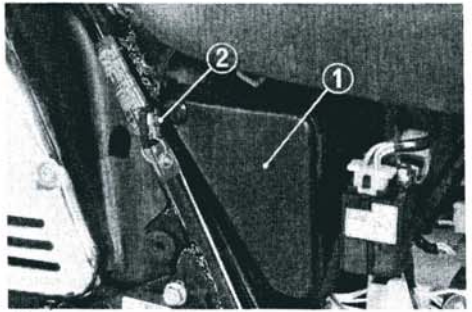
Storage Compartment

The storage compartment (1) is behind the left side cover.

Insert the ignition key and turn it clockwise to open the storage compartment cover.

The tool kit, this owner's manual and other documents should be stored in this compartment.

When washing your motorcycle, be careful not to flood this area with water.



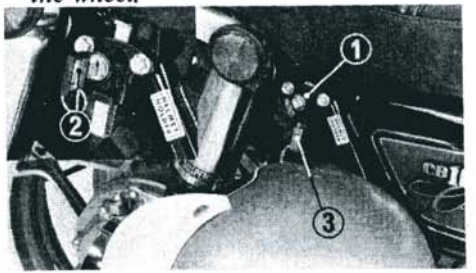
(1) Storage compartment cover
(2) Ignition key

Helmet Holder

The helmet holder (1) is by the right side of the seat. Insert the ignition key (2) and turn it clockwise to unlock. Hang the helmet on the lock (3) and turn the key counterclockwise to lock it. Remove the key.

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.***

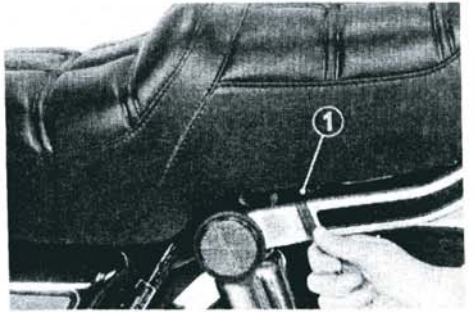


(1) Helmet holder
(2) Ignition key
(3) Lock

Seat Removal

It is necessary to remove the seat for battery servicing.

To remove the seat, remove the bolt (1) on each side of the seat, near the rear shock absorber.



(1) Seat bolt

DUAL RANGE TRANSMISSION

This motorcycle has a dual range transmission which lets you select either a high or low gear range for a total of ten available gear ratios. Use the HI range for highway riding and greater fuel economy. Use the LO range for winding mountain road or for sporty riding where extra power and acceleration are desired. The dual range shift pedal (1) is behind the gearshift pedal on the left side of the motorcycle. To shift:

From HI to LO

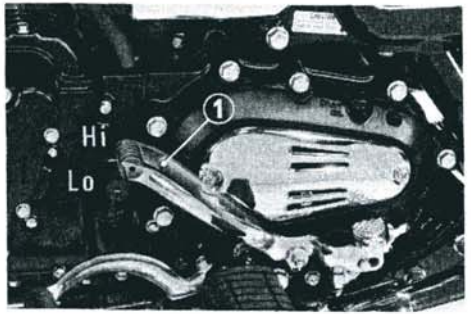
1. Pull the clutch lever to disengage the clutch.
2. Press down the dual range shift pedal.
3. Release the clutch lever slowly.

From LO to HI

1. Pull the clutch lever to disengage the clutch.
2. Raise the dual range shift pedal.
3. Release the clutch lever slowly.

CAUTION:

* *Be sure to disengage the clutch completely and move the dual range shift pedal fully up or down or transmission damage may occur.*



(1) Dual range shift pedal

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

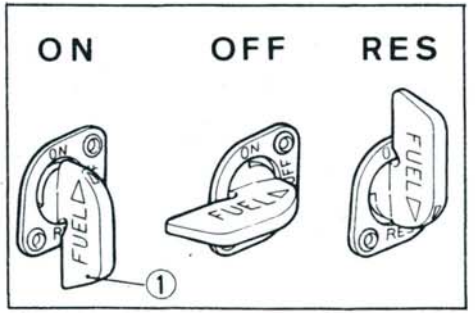
When the main fuel supply is gone, turn the fuel valve to RES. The reserve fuel supply is 3.0 ℓ (0.8 US gal) so refill the tank as soon as possible, then switch the valve back to ON.

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 motorcycle 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

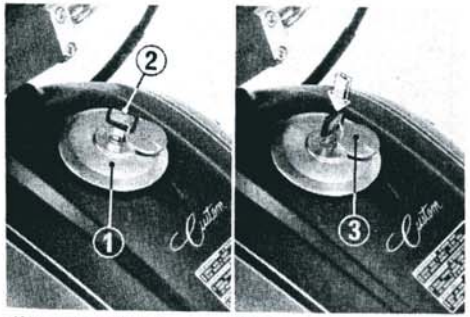
Fuel Tank

Fuel tank capacity is 16.5ℓ (4.4 US gal) including 3.0ℓ (0.8 US gal) in the reserve supply. To remove the fuel tank cap (1), insert the ignition key (2) and turn it clockwise. The cap will pop up and can be lifted off.

Any automotive gasoline with a pump octane number $\left(\frac{R+M}{2}\right)$ 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 attach the fuel tank cap, align the latch in the cap with the slot in the filler neck.

Push the cap into the filler neck until it snaps closed and locks. Remove the key and close the lock cover (3).



(1) Fuel tank cap
(2) Ignition key
(3) Lock cover

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

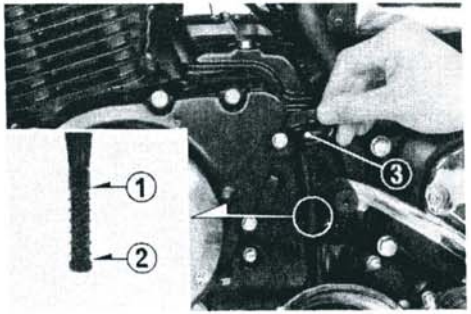
Check the engine oil level each day before riding the motorcycle.

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. Remove the oil filler cap/dipstick again and check the oil level. 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. Replace the 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 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.

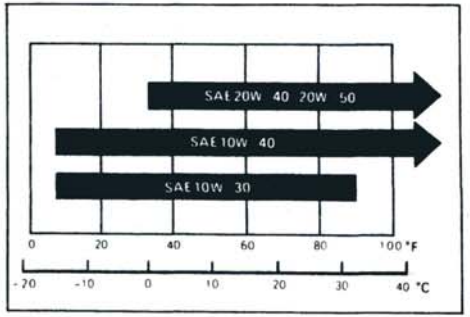
CAUTION:

* *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 show in the chart below may be used when the average temperature in your riding area is within the indicated range.



DUAL RANGE TRANSMISSION OIL

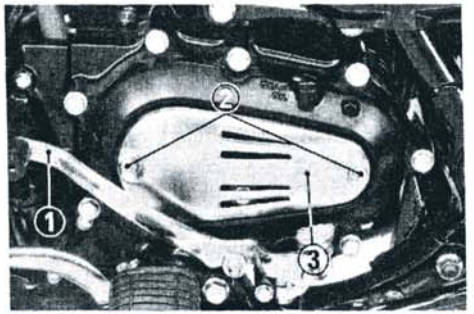
Oil Level Check

Check the dual range transmission oil level when specified by the maintenance schedule.

Place the motorcycle on its center stand on level ground.

Shift the dual range shift pedal (1) to LO.

Remove the screws (2) and protector cover (3).



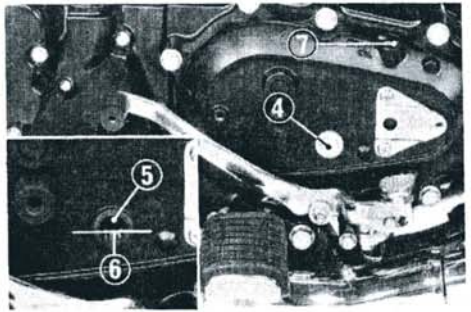
(1) Dual range shift pedal
(2) Screws (3) Protector cover

Remove the oil check bolt (4).

Check that the dual range transmission is filled up to the lower edge of the inspection hole (5) with oil.

If required, remove the oil filler cap (7) and add the recommended oil through the oil filler opening until it reaches the lower edge of the inspection hole.

Recommended Oil: HYPOID GEAR OIL SAE 80



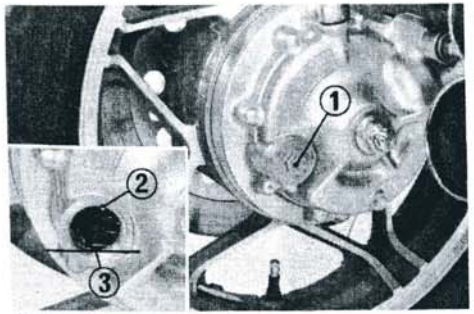
(4) Oil check bolt (6) Oil level
(5) Inspection hole (7) Oil filler cap

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 final drive gear case is filled up to the lower edge of the inspection hole (2).



(1) Oil filler cap
(2) Inspection hole
(3) Oil level

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.

4. Reinstall the oil filler cap.

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

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 to check and, in the long run, can save time, expense and possibly your life.

1. Engine oil level–if required, add engine oil (page 29). Check for leaks.
2. Fuel level–fill the fuel tank when necessary (page 28). Check for leaks.
3. Front and rear brakes–check operation; make sure there is no brake fluid leakage. (pages 67-69).
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 the 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.
* Do not flood the engine by twisting the throttle repeatedly. The carburetors have an accelerator pump.

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 Closed (A).
2. Start the engine, leaving the throttle closed.

CAUTION:

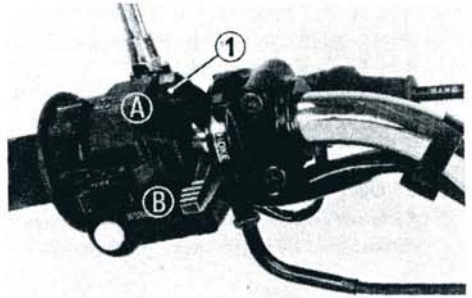
* ***The red oil pressure warning light should go off a few seconds after the engine starts. If the light stays on, stop the engine immediately and check engine oil level. Do not operate the engine with insufficient oil pressure.***

3. Immediately after the engine starts, operate the choke lever (1) to keep fast idle at 1,000–2,500 rpm.
4. About half a minute after the engine starts, pull the choke lever back all the way to Fully Open (B).
5. 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.



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

Low Air Temperature

10°C (50°F) or below

1. Follow steps 1 and 2 under Normal Air Temperature.
2. When engine speed begins to pick up, operate the choke lever (1) to keep fast idle at 1,000–2,500 rpm.
3. To speed warm up, open and close the throttle, keeping engine speed below 2,500 rpm.
4. About 6 minutes after the engine starts, pull the choke lever back all the way to Fully Open (B).
5. Continue warming up the engine by opening and closing the throttle until it will idle smoothly.

CAUTION:

* *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 all the way to Fully Open (B). Open the throttle fully and crank the engine with the electric starter 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). Ride 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 9,500 rpm at any time (tachometer RED ZONE limit).

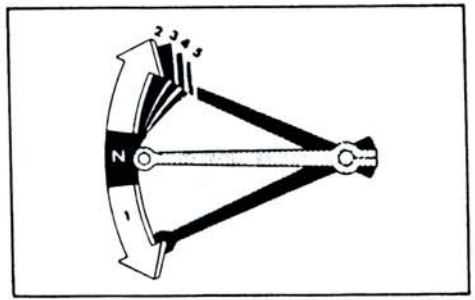
NOTE: **(USA ONLY)**

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

RIDING

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 shifting points:

NOTE:

* These shifting points apply to both HI and LO transmission ranges.

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)

Shifting Down:

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 traveling 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 1,700 rpm. Avoid idling for prolonged periods, or continuous operation below 1,700 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, and turn the ignition switch OFF and remove the key.
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 (page 24).

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. Use an additional anti-theft device of good quality.
5. Put your name, address, and phone number in this Owner's Manual and keep it on your motorcycle at all times. Many times stolen motorcycles are identified by information in the Owner's Manuals which are still with them.

NAME: _____

ADDRESS: _____

_____

_____

PHONE NO: _____

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 TUBELESS 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 repair to verify proper assembly.

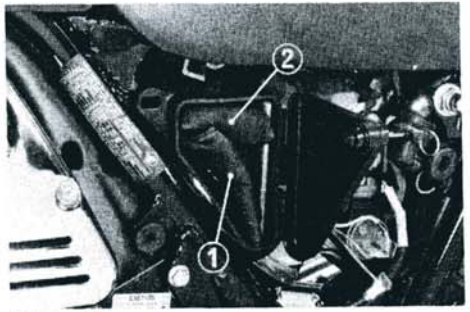
WARNING

* *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.

- Air pressure gauge
- 10 x 12 mm open end wrench
- 14 x 17 mm open end wrench
- Pliers
- No. 2 screwdriver
- No. 2 and No. 3 phillips screwdriver
- 6 mm hex wrench
- Screwdriver grip
- Handle for 22 mm and 24 mm wrenches
- 24 mm wrench
- Spark plug wrench
- Feeler gauge 0.7 mm
- Tool bag



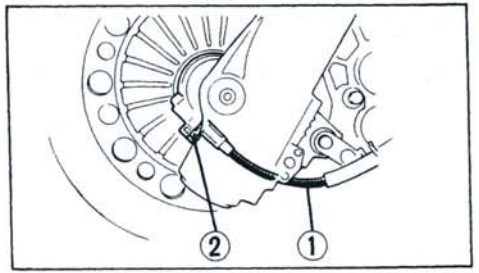
(1) Tool kit
(2) Air pressure gauge

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 (3) from the fork leg by removing the fixing bolts (4).

CAUTION:

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

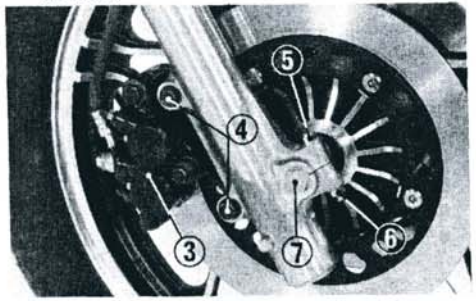


(1) Speedometer cable
(2) Speedometer cable set screw

4. Remove the front axle holding bolt (5) by loosening the nut (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.

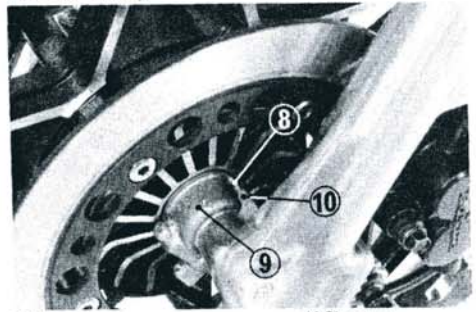


(3) Caliper assembly (6) Front axle holding nut
(4) Caliper fixing bolts (right side)
(5) Front axle holding bolt (7) Front axle

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 (8) on the speedometer gearbox (9) is against the rear of the tang (10) 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).



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

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).

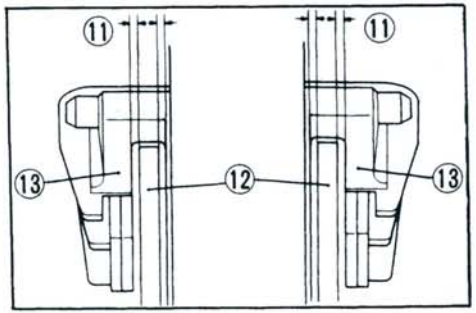
Measure the clearance (11) between each surface of the brake disc (12) and the caliper holder (13) with a 0.7 mm (0.028 in) feeler gauge (see sketch). If gauge (14) inserts easily, tighten the axle holding nut (6) to the specified torque.

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.***

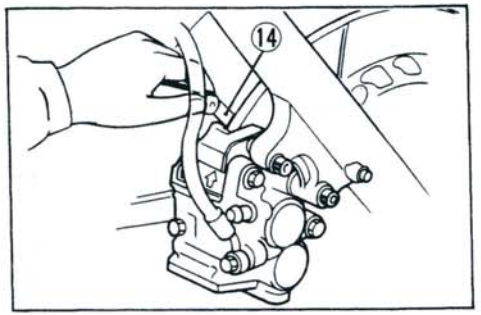
If the feeler gauge cannot be inserted easily, pull the forks outward or push inward until the gauge can be inserted and tighten the holding nut with the gauge inserted. After tightening, remove the gauge.
After installing the wheel, apply the brakes several times, then recheck both discs for caliper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



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

WARNING

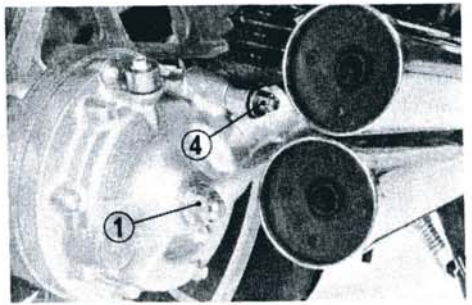
* ***Failure to provide adequate disc to caliper holder clearance may damage the brake discs and impair braking efficiency.***



(14) Feeler gauge

REAR WHEEL REMOVAL

1. Place the motorcycle on its center stand.
2. Support the rear wheel so it will not drop when the shock absorber is disconnected.
3. Remove the axle nut (1).
4. Remove the axle holding bolt (2) and brake disc dust cover (3).
5. Remove the lower shock absorber nut (4: right side).
6. Pull out the rear axle (5).

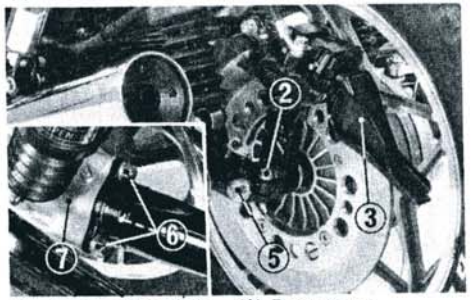


(1) Axle nut
(4) Lower shock absorber nut

CAUTION:

* *Support the caliper assembly and swingarm before removing the rear axle so that it does not hang from the brake hose. Do not twist the brake hose.*

7. Separate the wheel from the final drive case.
8. Remove the three final drive case nuts (6) and the final drive case (7).
9. Move the wheel backward.



(2) Axle holding bolt (3) Dust cover
(5) Rear axle
(6) Final drive case nuts
(7) Final drive case

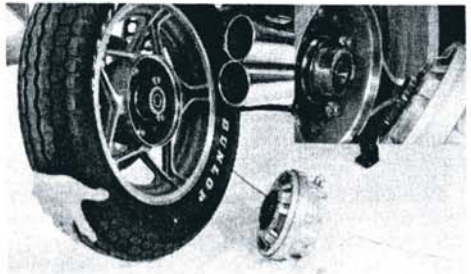
CAUTION:

* *Do not lay the final drive case over. The gear oil may flow out of the breather.*

10. Remove the wheel.

NOTE:

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



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.

NOTE:

* Torque the following nuts and bolt to:
  Axle nut: 80–100 N·m (8.0–10.0 kg-m, 58–72 ft-lb)
  Shock absorber nut: 30–40 N·m (3.0–4.0 kg-m, 22–29 ft-lb)
  Axle holding bolt: 24–29 N·m (2.4–2.9 kg-m, 17–21 ft-lb)
  Final drive case nuts: 35–45 N·m (3.5–4.5 kg-m, 25–33 ft-lb)

CAUTION:

* *When installing the wheel, fit the brake disc between the brake pads carefully.*

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

WARNING

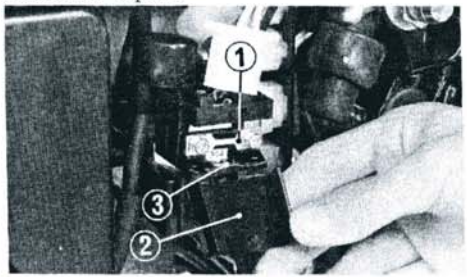
* ***If a torque wrench was not used for installation, see your dealer as soon as possible to verify proper assembly.***

CAUTION:

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

Fuse Replacement

The main fuse (1) is behind the left side cover. Remove the side cover and open the main fuse cover (2). The main fuse is 30A. The fuse box (4) is behind the right side cover, below the seat. Pull out the fuse box for access to fuses. The specified fuses are 15A (5). A spare fuse is in each fuse box. When frequent fuse failure occurs, it usually indicates a short circuit or an overload in the electrical system. See your authorized Honda dealer for repair.

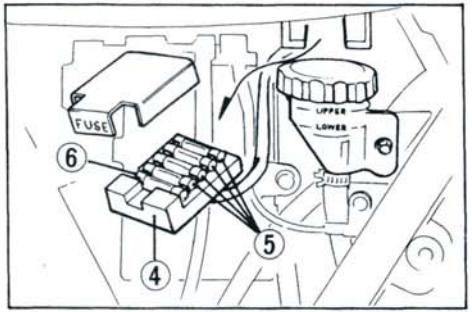


(1) Main fuse (3) Main spare fuse
(2) Fuse box cover

CAUTION:

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

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

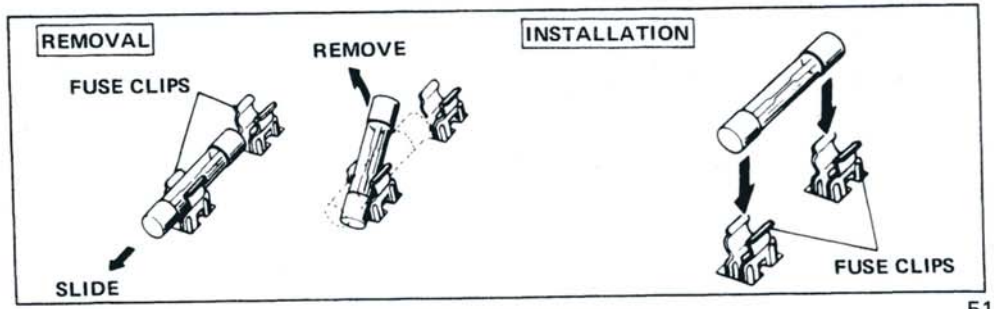


(4) Fuse box (5) Fuses
(6) Spare fuse

To replace fuses in the fuse box, open the fuse box cover, pull either hook away, then slide the fuse box off the hook and lift it up. Pull the old fuse out of the clips; or slide it lengthwise until one end comes out, then lift it out with your fingers. Push a new fuse into the clips and press in the fuse box.

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.*
* *Do not pry the clips open to get a fuse out; you could bend them and cause poor contact with the new fuse. A loose fuse could cause damage to the electrical system and even start a fire.*



MAINTENANCE

- The U.S. Environmental Protection Agency requires manufacturers to certify that motorcycles built after December 31, 1977 will comply with applicable emissions standards during their useful life, when operated and maintained according to the instructions provided. Compliance with the terms of the Distributor's Warranty for Honda Motorcycle Emission Control Systems is necessary in order to keep the emissions system warranty in effect. (USA ONLY)

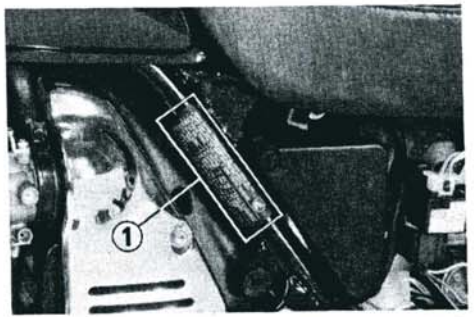
- When service is required, remember that your authorized Honda dealer knows your motorcycle best and is fully equipped to maintain and repair it. The scheduled maintenance may also be performed by a qualified service facility that normally does this kind of work; or you may perform most of the work 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, cables, brake hoses, 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 (1) is attached to the frame behind the left side cover, near the air cleaner case. (USA ONLY)



(1) Vehicle Emission Control Information label

MAINTENANCE SCHEDULE

Perform the Pre-ride Inspection (page 33) at each scheduled maintenance period.

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

		ITEM / 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
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 CLEANER	NOTE 1		C	R	C	R	C	R	Page 63
		CRANKCASE BREATHER	NOTE 2		C	C	C	C	C	C	Page 64
		SPARK PLUGS			R	R	R	R	R	R	Page 61
	*	VALVE CLEARANCE		I	I	I	I	I	I	I	
		ENGINE OIL	YEAR	R	R	R	R	R	R	R	Pages 57-58
		ENGINE OIL FILTER	YEAR	R	R	R	R	R	R	R	Page 58
	*	CAM CHAIN TENSION		A	A	A	A	A	A	A	
	*	CARBURETOR-SYNCHRONIZATION		I	I	I	I	I	I	I	
	*	CARBURETOR-IDLE SPEED		I	I	I	I	I	I	I	Page 62

		ITEM / 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	*	DRIVE SHAFT JOINT				L		L		L	
		DUAL RANGE TRANS OIL				I		I		R	Pages 31,59
		FINAL DRIVE OIL				I		I		R	Pages 32,60
		BATTERY	MONTH	I	I	I	I	I	I	I	Pages 71-72
		BRAKE FLUID	MONTH I 2 YEARS *R	I	I	I	*R	I	I	*R	Pages 67-68
		BRAKE PAD WEAR			I	I	I	I	I	I	Page 69
		BRAKE SYSTEM			I	I	I	I	I	I	Pages 67-69
	*	BRAKE LIGHT SWITCH			I	I	I	I	I	I	
	*	HEADLIGHT AIM			I	I	I	I	I	I	
		CLUTCH			I	I	I	I	I	I	Pages 65-66
		SIDE STAND				I	I	I	I	I	Page 70
	*	SUSPENSION			I	I	I	I	I	I	
	*	NUTS, BOLTS, FASTENERS			I	I	I	I	I	I	
	**	WHEELS			I	I	I	I	I	I	
	**	STEERING HEAD BEARING			I		I		I		

* SHOULD BE SERVICED BY AN AUTHORIZED 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 AN AUTHORIZED HONDA DEALER.

NOTE:
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 readings, 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 that whoever performs the maintenance completes this record. All scheduled 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

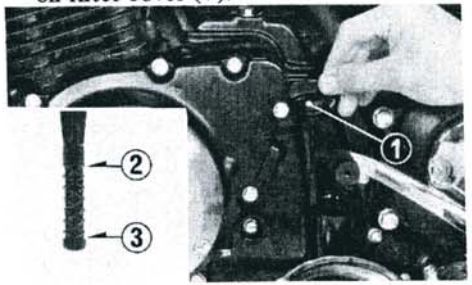
Engine Oil

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 (1), crankcase drain plug (4) and oil filter cover (7).



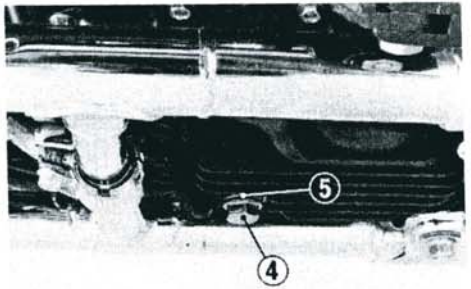
(1) Filler cap/dipstick (3) Lower level mark
(2) Upper level mark

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:
35–40 N·m (3.5–4.0 kg-m, 25–29 ft-lb)

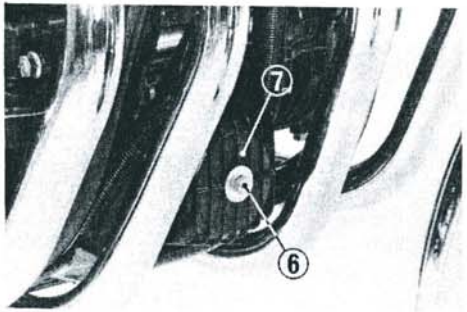
3. Check that the oil filter bolt (6) and cover O-rings are in good condition and install the cover.

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 3.5 liters (3.7 US qt) of the recommended oil.
5. Install the oil filler cap/dipstick (1).
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 (2) on the dipstick. Make sure there are no oil leaks.



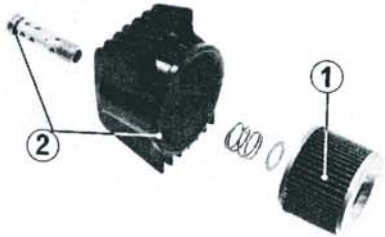
(6) Oil filter bolt (7) Oil filter cover

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

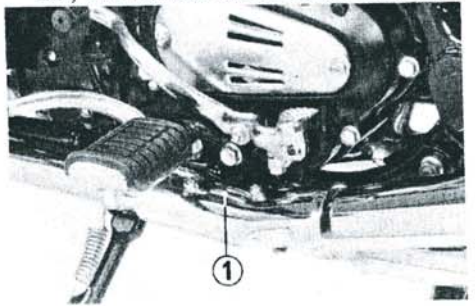
Dual Range Transmission Oil

Change the oil when specified by the maintenance schedule.

NOTE:

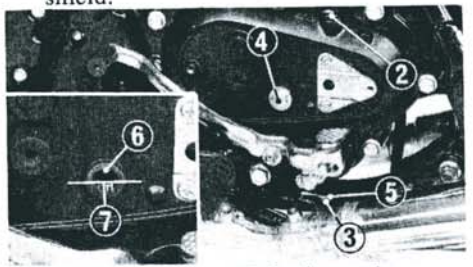
* Change the oil with the dual range transmission warm and the motorcycle on its center stand to assure complete and rapid draining.

1. To drain the oil, remove the exhaust pipe heat shield (1), oil filler cap (2), drain plug (3).
2. Remove the protector cover after shifting the dual range shift pedal to LO, and remove the oil check bolt (4).



(1) Exhaust pipe heat shield

3. 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:
   16–20 N·m (1.6–2.0 kg-m, 12–14 ft-lb)
4. Fill the dual range transmission with approximately 600 cc (20.4 oz) of the recommended oil. Make sure that the recommended oil is filled up to the lower edge of the inspection hole (6).
5. Install the oil filler cap, oil check bolt, protector cover and exhaust pipe heat shield.



(2) Oil filter cap (5) Sealing washer
(3) Oil drain plug (6) Inspection hole
(4) Oil check bolt (7) Oil level

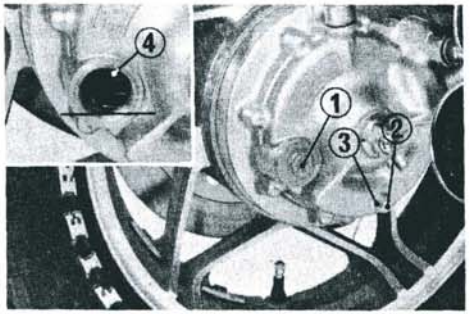
Final Drive Oil

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 oil 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 150 cc (5.1 oz) of the recommended oil. (page 32)
   Make sure the recommended oil is filled up to the lower edge of the inspection hole (4).
4. Install the oil filler bolt and check bolt.



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

Spark Plugs

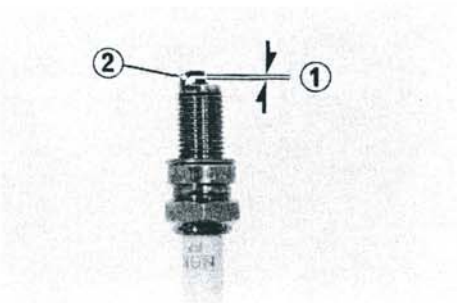
Recommended spark plugs:

Standard:
X27ESR-U (ND) or DR8ES (NGK)
For cold climate: (Below 5°C, 41°F)
X24ESR-U (ND) or DR8ES-L (NGK)

1. Disconnect the spark plug caps.
2. Clean any dirt from around the spark plug bases.
3. Remove and discard the spark plug.
4. Make sure the new spark plug gap (1) is 0.6–0.7 mm (0.024–0.028 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. Connect the spark plug caps.

CAUTION:

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



(1) Spark plug gap
(2) Side electrode

Idle Speed

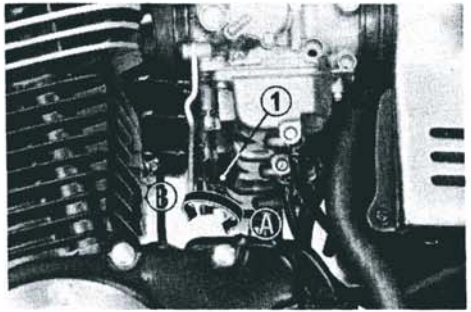
The idle speed adjustment procedure given here should only be used when changes in altitude affect normal idling speed as set by your dealer. See your authorized Honda dealer for regularly scheduled carburetor adjustment, including individual carburetor adjustment and synchronization.

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.

   Idle Speed: 1,000 ± 100 rpm

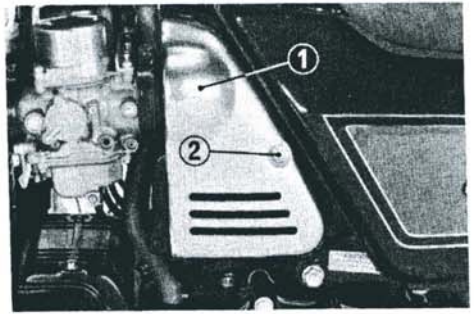


(1) Throttle stop screw (A) Increase rpm (B) Decrease rpm

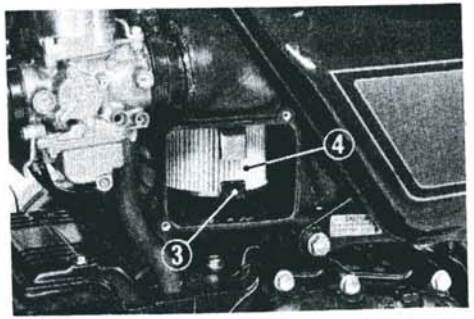
Air Cleaner

The air cleaner should be serviced at regular intervals (page 54). Service more frequently when riding in dusty areas.

1. Remove the air cleaner cover (1) by removing the two screws (2).
2. Pull the retainer (3) out and remove the air cleaner element (4).
3. Clean the element by tapping it lightly to loosen dust. Blow away the remaining dust by applying compressed air from the inside of the element. Replace the element if it is excessively dirty, torn or damaged.
4. Reinstall the element retainer and air cleaner cover.



(1) Air cleaner cover
(2) Screws



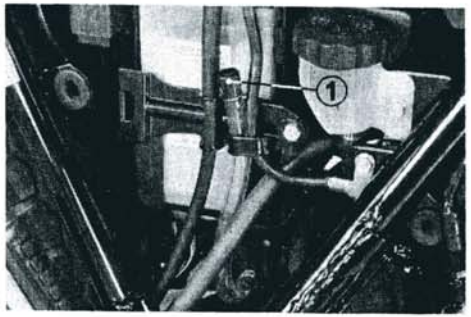
(3) Retainer
(4) Air cleaner element

Crankcase Breather

1. Remove the right side cover and remove the drain tube from the clamp on the battery holder.
2. Remove the drain plug (1) from the tube and drain the deposits.
3. Reinstall the drain plug (1).

NOTE:

* Service more frequently when riding in rain, at full throttle, or when deposits can be seen in the transparent section of the drain tube.

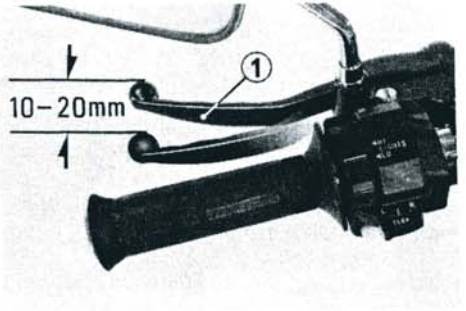


(1) Drain plug

Clutch

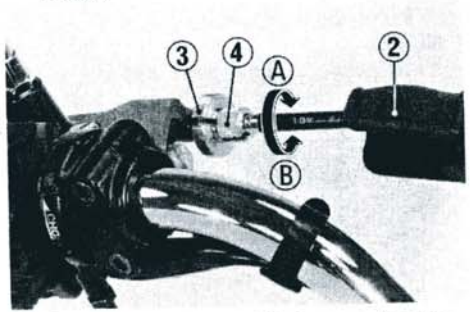
Clutch adjustment may be required if the motorcycle stalls when shifting into gear or tends to creep, or if the clutch slips, causing acceleration to lag behind engine speed.

Normal clutch lever free play should be 10–20 mm (3/8–3/4 in) at the lever (1). Minor adjustments can be made with the clutch cable adjuster at the lever.



(1) Clutch lever

1. Pull off the dust cover (2). Loosen the lock nut (3) and turn the adjuster (4). Tighten the lock nut (3) and check adjustment.
2. If the adjuster is threaded out near its limit or if the correct free play cannot be obtained, make a major adjustment. Loosen the lock nut (3) and turn in the adjuster (4) completely. Tighten the lock nut (3) and pull on the dust cover.



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

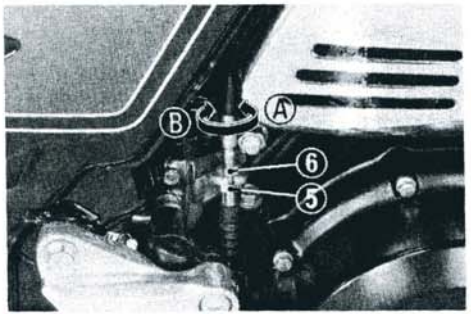
3. Loosen the lock nut (5) at the lower end of the cable. Turn the adjusting nut (6) to obtain the specified free play. Tighten the lock nut (5) and check adjustment.
4. Start the engine, pull in the clutch lever and shift into gear. Make sure the engine does not stall and the motorcycle does not creep.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

NOTE:

* If proper adjustment cannot be obtained or the clutch does not work correctly, see your authorized 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

Brakes

Both front and rear brakes are hydraulic disc types.

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 control lever or pedal free play becomes excessive and the brake pads are not worn beyond the recommended limit (page 69), there is probably air in the brake system and it must be bled out. See your authorized Honda dealer for this service.

Front Brake Fluid Level:

WARNING

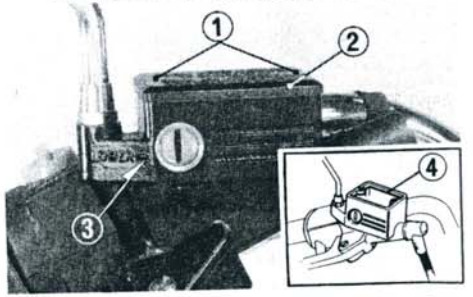
* *Brake fluid may cause irritation. Avoid contact with skin or eyes. In case of contact, flush thoroughly with water and call a doctor if your eyes were exposed.*

Remove the screws (1), the reservoir cover (2) and diaphragm. Whenever the level is near the lower level mark (3) on the front 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.

Tighten the cover 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.*



(FRONT) (1) Screws (3) Lower level mark
(2) Cover (4) Upper level mark

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

Rear Brake Fluid Level:

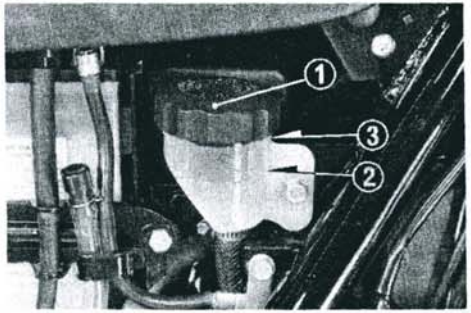
WARNING

* ***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 reservoir cap (1), washer and diaphragm. Whenever the level is near the lower level mark (2) on the rear reservoir, fill the reservoir with DOT 3 BRAKE FLUID from a sealed container, up to the upper level mark (3). Reinstall the diaphragm and washer, and tighten the reservoir cap securely.

CAUTION:

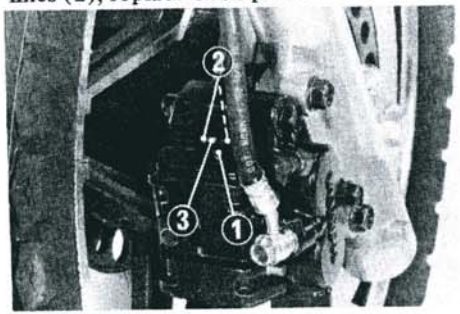
* *Use only fresh DOT 3 brake fluid from a sealed container.*
* *Handle brake fluid with care because it can damage paint and electric wires.*
* *Never allow contaminants (dirt, water, etc.) to enter the brake fluid reservoir.*



(REAR) (1) Reservoir cap
(2) Lower level mark
(3) Upper level mark

Brake pads:

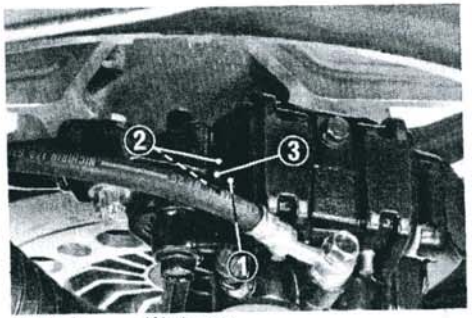
Brake pad wear will depend upon the **severity of usage, type of riding, and** condition of the roads. The pads will wear faster on dirty and wet roads. Inspect the pads visually from the direction as indicated by the arrow during all regular service intervals to determine the pad wear. If the pads wear to the wear lines (2), replace both pads.



(FRONT) (1) Arrow
(2) Wear line
(3) Brake disc

Other checks:

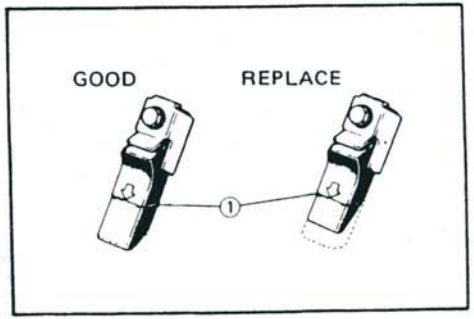
Make sure that there are no fluid leaks. Check for deterioration or cracks in the hoses and fittings.



(REAR) (1) Arrow
(2) Wear line
(3) Brake disc

Side Stand

Check the rubber pad for deterioration and wear. Replace if any 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:

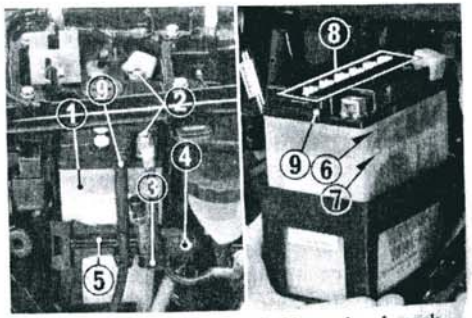
The battery (1) is behind the right side cover under the seat. Remove the seat by removing the seat bolt on each side of the seat. Disconnect the terminal leads (2) (the negative lead first, then the positive terminal lead) from the battery (1). Remove the negative (ground) cable and the crankcase breather tube from the clamp (3). Remove the battery holder bolt (4) and open the battery holder (5). Pull out the battery and check the electrolyte.

The electrolyte level must be maintained between the upper (6) and lower (7) level marks on the side of the battery. If the electrolyte level is low, remove the battery filler caps (8).

Carefully add distilled water to the upper level mark using a small syringe or plastic funnel.

CAUTION:

* *When checking battery electrolyte level or adding distilled water, make sure the breather tube is connected to the battery breather outlet (9).*



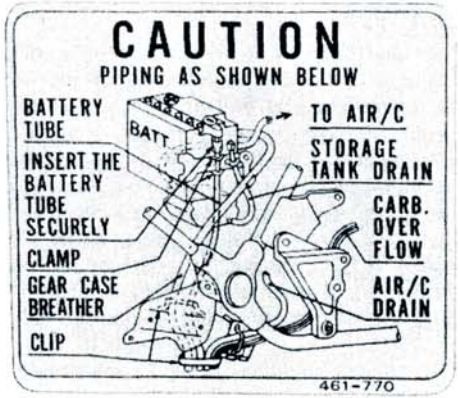
(1) Battery
(2) Terminal leads
(3) Clamp
(4) Bolt
(5) Battery holder
(6) Upper level mark
(7) Lower level mark
(8) Filler caps
(9) Breather outlet

NOTE:

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

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.***



CLEANING

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

CAUTION:

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

Wheel Hubs	*Ignition Switch*
Carburetors	*Brake Master Cylinders*
Instruments	*Muffler Outlets*
Handlebar-switches	*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.
3. Test the brakes before riding the motorcycle in traffic. Several applications may be necessary to restore normal braking performance.

WARNING

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

STORAGE GUIDE

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. Operate the starter for a few seconds to distribute the oil, then reinstall the spark plugs.

NOTE:

* When turning the engine over, 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.

4. 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.
5. Wash and dry the motorcycle. Wax all paint surfaces. Coat chrome with rust-inhibiting oil.
6. Inflate the tires to their recommended pressures. Place the motorcycle on blocks to raise both tires 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.
   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 recommended gear oil if necessary. Change the final drive oil as specified by the Maintenance Schedule. Perform all Pre-ride Inspection checks (page 33). Test ride the motorcycle at low speeds in a safe riding area away from traffic.

EMISSION CONTROL SYSTEM (USA ONLY)

- **Source of Emissions**

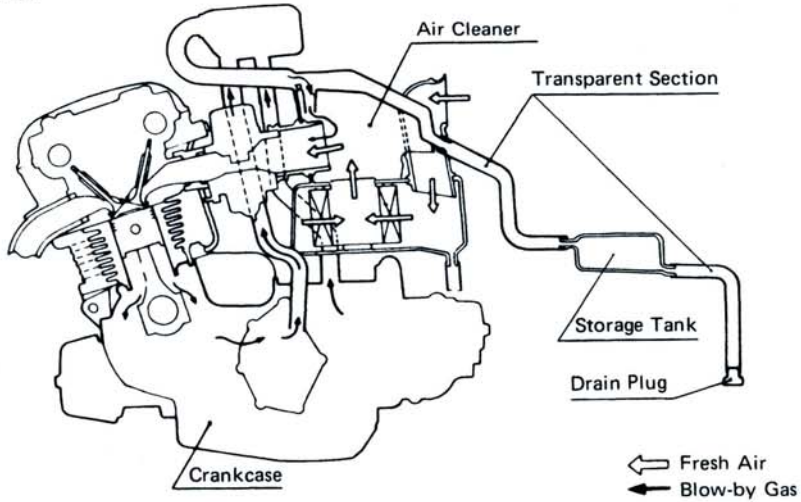
  The combustion process produces carbon monoxide and hydrocarbons. Control of hydrocarbons is very important because, under certain conditions, they react to form photochemical smog when subjected to sunlight. Carbon monoxide does not react in the same way, but it is toxic.
  Honda Motor Co., Ltd. utilizes 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 crankcase emissions into the atmosphere.
  Blow-by gas is returned to the combustion chamber through the air cleaner and the carburetor.



- **Problems Which May Affect Motorcycle Emissions**

  If you are aware of any of the following 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.

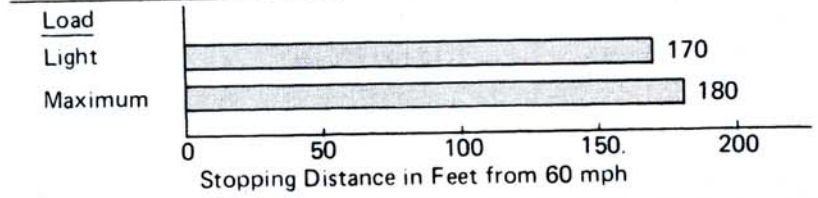
CONSUMER INFORMATION

VEHICLE STOPPING DISTANCE

This table indicates braking performance that can be met or exceeded by the vehicles to which it applies, without locking the wheels under different conditions of loading. The information presented represents results obtained by skilled riders 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 CB1000C

Full Operational Service Brake



SPECIFICATIONS

Item	
DIMENSIONS	
Overall length	2,325 mm (91.5 in)
Overall width	890 mm (35.0 in)
Overall height	1,220 mm (48.0 in)
Wheelbase	1,612 mm (63.5 in)
WEIGHT	
Dry weight	265 kg (584 lbs)
CAPACITIES	
Engine oil	3.5 ℓ (3.7 US qt) After draining
Fuel tank	16.5 ℓ (4.4 US gal)
Fuel reserve tank	3.0 ℓ (0.8 US gal)
Passenger capacity	Operator and one passenger
Vehicle capacity load	215 kg (475 lbs)
ENGINE	
Bore and stroke	67 x 69 (2.638 x 2.717 in)
Compression ratio	9.0 : 1
Displacement	973 cc (59.4 cu.in)

Item		
Spark plug		
	Standard	X27ESR–U (ND) or DR8ES (NGK)
	For cold climate: (Below 5°C, 41°F)	X24ESR–U (ND) or DR8ES–L (NGK)
Spark plug gap		0.6–0.7 mm (0.024–0.028 in)
Valve clearance (cold)		INTAKE: 0.06–0.13 mm (0.002–0.005 in) EXHAUST: 0.06–0.13 mm (0.002–0.005 in)
Idle speed		1,000 ± 100 rpm

Item	
CHASSIS AND SUSPENSION	
Caster	29°
Trail	99 mm (3.9 in)
Tire size, front	110/90-18 62H or M110/90-18
Tire size, rear	140/90-16 67Hor M140/90-16
POWER TRANSMISSION	
Primary reduction	1.000/2.042
Final reduction	3.100
Secondary reduction I	0.596 (High range)
II	0.721 (Low range)
Third reduction	1.200 : 1
Gear ratio, 1st	2.375 : 1
2nd	1.789 : 1
3rd	1.391 : 1
4th	1.160 : 1
5th	0.964 : 1

Item		
ELECTRICAL		
Battery	12 V–14 AH	
Alternator	0.266 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–3W	
Turn signal indicator	12V–3W	
High beam indicator	12V–3W	
Oil pressure warning light	12V–3W	
Position	12V–3 cp	SAE NO. 1034
FUSE	15A (Headlight, taillight and instrument light) 30A (Main fuse)	

MEMO