THIS IS A OWNERS MANUAL FOR A HONDA CT110 SERIES MOTORCYCLE. PLEASE BE ADVISED THAT THIS IS THE CLOSEST THING TO THE HARDKNOCK BOBBER. WE ARE NOT RESPONSIBLE FOR ANY INACCURACIES IN THIS MANUAL NOR MISUSE OR NON MAINTENANCE DONE ON YOUR BIKE. PLEASE READ WITH CARE AND USE COMMON SENSE. THANKS AND ENJOY YOUR HARDKNOCK BOBBER.

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 (2) and lower (3) marks on the dipstick (1).

1. Start the engine and let it idle for a few minutes.
2. Stop the engine and hold the motorcycle in an upright position on firm, level ground.
3. After a few minutes, remove the oil filler cap/dipstick, wipe it clean, and reinsert the dipstick without screwing it in. The oil level should be between the upper and lower 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.**

TYRES

Proper air pressure will provide maximum stability, riding comfort and tire life. Check tire pressure frequently and adjust if necessary.

NOTE **Tire pressure should be checked before you ride while the tyres are cold.**

Select the right replacement tire in accordance with the following specifications:

Cold tire pressures kPa (kg/cm^2, psi)	Front: 175 (1.75, 25) Rear : 225 (2.25, 33)
Tire size	Front: 2.75 - 17 41P Rear : 2.75 - 17 41P

Check the tires for cuts, embedded nails, ore other sharp objects. See your authorized Honda Dealer for replacement of damaged tires or punctured inner tubes.

WARNING

- **Do not attempt to patch a damaged tire or inner tube. Wheel balance**

and tire reliability may be impaired.

- **Improper tire inflation will cause abnormal tread wear and create a safety hazard. Under inflation may result in the tire slopping on, or coming off of the rim causing tire deflation that may result in a loss of vehicle control.**
- **Operation with excessively worn tire is hazardous and will adversely affect traction and handling.**

OPERATION

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 ride it. The items listed here will only take a few minutes to check, and in the long run they can save time, expense and possibly you life.

1. **Engine oil level** - add engine oil if required. Check for leaks.
2. **Fuel level** - fill the fuel tank when necessary. Check for leaks.
3. **Brakes** - check operation. Adjust free play if necessary.
4. **Tyres** - check condition and pressure.
5. **Drive chain** - check condition and slack. Adjust and lubricate if necessary.
6. **Throttle** - check for smooth opening and full closing in all steering positions.
7. **Lights** - check that headlight, tail/brake light, turn signals, indicators.
8. **Engine stop switch** - check for proper function.
9. **Battery electrolyte** - check the level and add if necessary

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

Starting Procedure

Cold engine

1. Raise the choke lever (1) to Fully ON (A).
2. Open the throttle slightly and operate the kick starter with the right foot, starting from the top of the stroke and following through to the bottom with a rapid and continuous kick.

   CAUTION **Do not allow the kick starter to snap back freely against the pedal stop as engine case damage could result.**
3. Warm up the engine at approx. 1,500 rpm until it runs smoothly with the choke lever Fully OFF (B).

Starting in Extremely Cold Weather

Prime the engine before starting by cranking the engine several times with the kick starter. The ignition switch should be OFF, the choke lever Fully ON (A) and the throttle opened slightly.

Flooded Engine

If the engine fails to start after several repeated attempts, it may have become flooded with excess fuel. To clear the engine, turn off the engine stop switch and lower the choke lever to Fully OFF (B). Open the throttle fully and crank the engine several times with the kick starter. Turn the engine stop switch to RUN and open the throttle slightly; start the engine using the kick starter.

RUNNING-IN

During the first 1,000 km (600 miles) , do not operate the motorcycle at more than 80 % of the maximum speed in any gear. A void full throttle operation, and do not operate for a long time at one speed. During initial running in, newly machined surfaces will be in contact with each other and these surfaces will wear in quickly. Running-in Maintenance at 1,000 km (600 miles) is designed to compensate for this initial minor wear. Timely performance of the running-in maintenance will ensure optimum service life and performance from the engine.

MAINTENANCE

- 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 it 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 you individual needs and use.

MAINTENANCE SCHEDULE

The following items require some mechanical knowledge. Certain items (particularly those marked* and**) may require more technical information and tools. Consult your authorized Honda Dealer. Perform the Pre-ride Inspection at each scheduled maintenance period.

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

		ODOMETER READING [NOTE 3]				
		x 1,000 km¨	1	4	8	12
		MONTH¨		6	12	18
*	FUEL LINE			I	I	I
*	FUEL STRAINER SCREEN			C	C	C
*	THROTTLE OPERATION			I	I	I
@	AIR CLEANER	NOTE 1		C	C	C
@	CRANKCASE BREATHER	NOTE 2, 4		C	C	C
@	SPARK PLUG			I	R	I
*	VALVE CLEARANCE		I	I	I	I
@	ENGINE OIL		R	R	R	R
**	ENGINE OIL STRAINER SCREEN					C
*	CAM CHAIN TENSION		A	A	A	A
*	CARBURETOR IDLE SPEED		I	I	I	I
@	DRIVE CHAIN	NOTE 2	I, L EVERY 1,000 km			
@	BATTERY	NOTE 5		I	I	I
@	BRAKE SHOE WEAR			I	I	I
@	BRAKE SYSTEM		I	I	I	I
*	BRAKE LIGHT SWITCH			I	I	I
*	HEADLIGHT AIM			I	I	I
@	CLUTCH SYSTEM		I	I	I	I
@	SIDE STAND			I	I	I
*	SUSPENSION			I	I	I
*	NUT, BOLT, FASTENER	NOTE 2	I		I	
**	WHEEL	NOTE 2	I	I	I	I
**	STEERING HEAD BEARING		I			I

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

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

NOTE

1. **Service more frequently when riding in unusually wet or dusty areas.**
2. **Service more frequently when riding OFF-ROAD.**
3. **At higher odometer readings, repeat at the frequency interval established here.**

MAINTENANCE PRECAUTIONS

WARNING

- **If your motorcycle is overturned or involved in a collision, inspect control levers, cable, accessories, and other vital parts for damage. Do not ride the motorcycle if damage impairs sage operation. Have your authorized 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 firm, 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.**

AIR CLEANER

(Refer to the maintenance precaution.)

The air cleaner should be serviced at regular intervals. When riding in dusty areas, more frequent service may be necessary.

1. Remove the wing nut (1) , washer and air cleaner tube clamp screw (2) , then remove the air cleaner tube and air cleaner housing cover.
2. Unsecure the mounting plate bolt (3) and remove the mounting plate (4) .
3. Pull out the air cleaner (5) .
4. Wash the air cleaner in non-flammable or high flash point solvent and let it dry thoroughly.

   WARNING **Never use petrol or low flash point solvents for cleaning the air cleaner. A fire or explosion could result.**
5. Soak the air cleaner in gear oil (SAE 80 - 90) and squeeze out the excess.
6. Install the removed parts in the reverse order of disassembly.

ENGINE OIL

(Refer to the maintenance precaution.)

Engine Oil

Good engine oil has many desirable qualities. Use only high detergent, quality motor oil certified on the container to meet or exceed requirements for service SE or SF. It is not necessary to use additives.

Viscosity:

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

Oil Change

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

NOTE **Change engine oil with the engine at normal operating temperature and the motorcycle in an upright position to assure complete and rapid draining.**

1. Remove the oil filler cap/dipstick (1) and drain plug (2) to drain the oil.

   WARNING **A warmed-up engine and the oil in it are hot; be careful not to burn yourself.**
2. With the ignition switch OFF, operate the kick starter several times to drain any oil which may be left in the engine.
3. Check that the sealing washer on the drain plugs is in good condition and install the plug. Replace the sealing washer every other time the oil is changed, or each time if necessary.
4. Fill the crankcase with the recommended grade oil; approximately:

   0.9 L (1.0 US qt, 0.8 Imp qt) .

5. Install the oil filler cap/dipstick.
6. Start the engine and let it idle for a 2-3 minutes.
7. Stop the engine and check that the oil level is at the upper level mark on the dipstick with the motorcycle up light on firm, level ground. Make sure there are no oil leaks.

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

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

SPARK PLUG

(Refer to the maintenance precaution.)

1. Disconnect the spark plug caps from the spark plug.
2. Clean any dirt from around the spark plug base. Remove the spark plug using the plug wrench furnished in the tool kit.
3. Inspect the electrodes and center porcelain for deposits, erosion or carbon fouling. If the erosion or deposit is heavy, replace the plug. Clean a carbon or wet-fouled plug with a plug cleaner,

otherwise use a wire brush.

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

   The gap should be :

   0.6 - 0.7 mm (0.024 - 0.028 in)

   Make sure the plug washer is in good condition.

5. With the plug washer attached, thread the spark plug in by hand to prevent cross threading.
6. Tighten a new spark plug 1/2 turn with a spark plug wrench to compress the washer. If you are reusing a plug, it should only take 1/8 - 1/4 turn after the plug seat.
7. Reinstall the spark plug cap.

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. Sever engine damage could result.**

VALVE CLEARANCE

(Refer to the maintenance precaution.)

Excessive valve clearance will cause noise, and little or no clearance will prevent the valve from closing and cause valve damage and power loss. Check valve clearance at the specified intervals.

CAUTION **Checking or adjusting of valve clearance should be performed while the engine is cold. The clearance will change as the engine temperature rises.**

1. Remove the crankshaft hole cap and timing mark hole cap.
2. Remove the valve adjuster covers.
3. Rotate the crankshaft counterclockwise and align the T mark (1) with the index mark (2). Make sure the piston is at the top of the compression stroke by jiggling the rocker arms with your fingers. If they are free, the piston is at the top of the compression stroke. If they are tight, rotate the crankshaft 360‹ and re-align the marks.
4. Check the clearance by inserting the feeler gauge (3) between the valve adjusting screw (4) and valve stem.

   NOTE **When checking the clearance, slide the feeler gauge from the inside out.**

   Standard clearance:

   - **In. 0.05 mm (0.002 in)**
   - **Ex. 0.05 mm (0.002 in)**

   Adjust by loosening the lock nut (5) and turning the adjusting screw (4) until there is a slight drag on the feeler gauge. After tightening the lock nut

(5), recheck the clearance.

5. Install all parts in the revers order of disassembly.

THROTTLE OPERATION

(Refer to the maintenance precaution.)

1. Check for smooth rotation of the throttle grip from the fully open to the fully closed position at both full steering positions.
2. Measure the throttle grip free play at the throttle grip flange. The standard free play should be approx:

3 - 5 mm (0.12 - 0.20 in)

To adjust he play , loosen the lock nut (1) and turn the adjuster (2).

IDLE SPEED

(Refer to the maintenance precaution.)

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

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

1. **warm up the engine, shift to neutral and place the motorcycle on its stand.**
2. **Connect a tachometer to the engine.**
3. **Adjust idle speed with the throttle stop screw (1). Idle speed: (In neutral)**

1,500}100 min^{-1} (rpm)

CAM CHAIN ADJUSTMENT

(Refer to the maintenance precaution.)

When the cam chain is noisy, adjustment the tension in the following manner:

1. Start the engine and maintain it at idle speed (1,500 min^{-1}).
2. Loosen the lock nut (1) , and loosen the tensioner adjusting bolt (2) approximately one half turn. Tighten the lock nut.
3. If the chain is still noisy even after the above adjustment, loosen the lock nut (1) adjusting bolt (2) and the 14 mm sealing bolt (3) located at the bottom of the crankcase, and screw in the tensioner bolt (4) gradually with the engine running, until the cam chain becomes quiet. After completing the adjustment, tighten the tensioner adjusting bolt (2) , lock nut (1) , and 14 mm sealing bolt (3) securely.

DRIVE CHAIN

(Refer to the maintenance precaution.)

The service life of the drive chain is dependent upon proper lubrication and adjustment. Poor maintenance can cause premature wear or damage to the drive chain and sprockets. Under serve usage, or when the motorcycle is ridden in dusty areas, more frequent maintenance will be necessary.

CLEANING

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

CAUTION **High pressure water (on air) can damage certain parts of the motorcycle.**

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

Wheel Hubs	Ignition Switch
Muffler Outlet	Steering Lock
Under Fuel Tank	Drive Chain
Carburetor	Instruments
Under Seat	

1. 1.After cleaning, rinse the motorcycle thoroughly with plenty of clean water. Strong detergent residue can corrode alloy parts.

   NOTE **Clean the plastic parts using a cloth or sponge dampened with a solution of mild detergent and water.**
2. Dry the motorcycle, start the engine, and let it run for several minutes.
3. Lubricate the drive chain immediately after washing and drying the motorcycle
4. 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

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

STORAGE

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

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

   WARNING **Petrol is extremely flammable and is explosive under certain conditions. Perform this operation in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where petrol is drained or stored and where the fuel tank is refueled.**
3. Remove the spark plug and pour a tablespoon (15 - 20 cm^3) of clean engine oil into the cylinder. Operate the kick starter several times to distribute the oil. spark plug.

   NOTE **When turning the engine over, the Ignition Switch should be OFF and the 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 painted surfaces.
6. Lubricate the drive chain.
7. Inflate the tyres to their recommended pressures. Place the motorcycle on blocks to raise both tyres off the ground.
8. Cover the motorcycle (don't use plastic or other coated materials) and store in an unheated area, free of dampness with a minimum of daily temperature variation. Do not store the motorcycle in direct sunlight.