# **Honda HHB25**

## **OWNER'S MANUAL**

**Original instructions** 

## MANUEL DE L'UTILISATEUR

**Notice originale** 

## **BEDIENUNGSANLEITUNG**

Originalbetriebsanleitung

# MANUAL DE EXPLICACIONES

Manual original

Thank you for purchasing a Honda handy blower.

This manual covers the operation and maintenance of the Honda Handy Blower HHB25.

Honda Motor Co., Ltd. reserves the right to make changes at any time without notice and without incurring any obligation.

No part of this publication may be reproduced without written permission.

This manual should be considered a permanent part of the handy blower and should remain with it if it is resold.

Pay special attention to statements preceded by the following words;

**AWARNING** Indicates a strong possibility of severe personal injury or death if instructions are not followed.

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

NOTE: Gives helpful information.

If a problem should arise, or if you have any questions about the handy blower, consult an authorized Honda dealer.

Honda handy blower is designed to give safe and dependable service if operated according to instructions.

A WARNING Operating a handy blower requires special effort to ensure the safety of the operator and the safety of others. Read and understand this Owner's Manual before operating the handy blower; failure to do so could result in personal injury or equipment damage.

• The illustrations may vary according to the type.

## Disposal

To protect the environment, do not dispose of this product, battery, engine oil, etc. carelessly by leaving them in the waste. Observe the local laws and regulations or consult your authorized Honda dealer for disposal.

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## 1. SAFETY INSTRUCTIONS

## **A** WARNING

### To ensure safe operation

For your safety and safety of others, pay special attention to these precautions:

## Operator Responsibility

- Any part from the machine is a potential source of danger if the machine is used in abnormal conditions or if the maintenance is not done correctly.
- Read the Owner's Manual careful. Be familiar with the controls and their proper use of the handy blower. Know how to stop the engine rapidly.
- Never allow children or people unfamiliar with this Owner's Manual to use the handy blower. Local regulations may restrict the age of the operator.
- If you lend or resell your handy blower to a third person, instruct him or her with how to handle the product and alert him or her to read and understand the Owner's Manual carefully before operation.
- Never operate the handy blower while:
  - people, especially children or pets are nearby.
  - user is fatigued or under medication, or has swallowed substances known to affect judgment or reactions.
- Keep people and pets away from the operator during operation.
- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.
- Do not operate the handy blower near open windows, etc.

## To ensure safe operation

#### **Operator Responsibility**

- While operating the handy blower, always wear following protective clothing and protective devices.
  - Protective clothing

Wear adequate clothes with long sleeves and long pants. The clothes must fit your body and button up or zip up the clothes securely. Do not leave the sleeves and bottom of the shirt/jacket loose. Wear the arm covers, too.

Do not wear the clothes with the tapes, laces and/or ribbons, loose clothes, necktie, necklace, etc. during operation. They can be caught in the handy blower causing injury. Bind your hair if it is long, and do not let your hair below your shoulder.

- Protective devices
  - \* Goggles

Wear the goggles or other eye protection to protect your eyes from the debris that is thrown by the handy blower.

\* Helmet

Wear the helmet to protect your head from the overhead branches and the falling foreign material.

- \* Face shield
  - Wear face shield to protect your face from debris thrown by the handy blower.
- \* Ear muffs/ear plugs
  Wear the ear muffs, ear plugs or other hearing protection to
  protect your ears from the noise.
- \* Gloves

Wear the gloves to protect your hands.

\* Safety boots

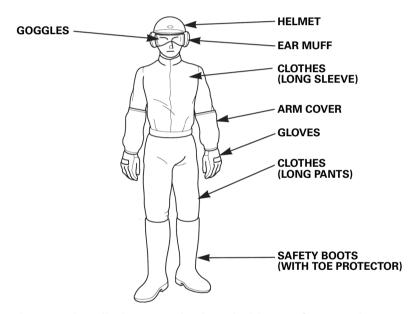
Wear the safety boots with the non-slip sole and toe protector to protect your feet from the flying debris.

Do not operate the equipment when barefoot or wearing open sandals.

## To ensure safe operation

## **Operator Responsibility**

\* Dust mask
We recommend that you wear the dust mask if you suffer from
the allergic rhinitis, e.g. pollinosis, etc. The dust mask is available
at a pharmacy and it is helpful for reducing the amount of pollens
you breathe.



- Before each use, visually inspect the handy blower for any damage and looseness of fastening part.
- Before each use, look around and underneath the engine for signs of oil or gasoline leaks.
- Avoid operating the handy blower at night or in a bad weather of poor visibility, because there is much possibility of accident.
- Walk, never run during operation.
- Avoid operating the handy blower on a steep slope. The steep slope is very slippery, so you can slip down.

## To ensure safe operation

## **Operator Responsibility**

- Do not operate the handy blower with the labels, and other parts removed.
- Do not mount any incorrect parts and do not tamper with the handy blower as it can result in personal injury and/or equipment damage. Use the parts that are designed for your model and application.
- Stop the engine and disconnect the spark plug cap in the following cases:
  - Before any operation around the handy blower.
  - Before checking, cleaning or working on the handy blower.
  - After striking a foreign object. Inspect the handy blower for damage and make repairs before restarting and operating the handy blower again.
  - If the handy blower starts to vibrate abnormally. Check immediately the cause of the vibration and perform the necessary repair.
- Stop the engine in the following cases:
  - Whenever you leave the handy blower unattended.
  - Before refueling.
  - When any person or pet is approaching.
  - Shut off the engine immediately when the handy blower shows abnormal vibration suddenly. Sudden vibration can suggest the damaged rotating parts or loose fasteners. Examine the cause of the problem, and do not start the engine before repair is made.
- The handy blower is faulty when the engine is idling by returning the throttle but the handy blower keeps turning, and idle speed adjustment must be made. Consult your authorized Honda dealer.
- Keep all nuts, bolts and screws tight to be sure the handy blower is in safe working condition. Regular maintenance is an essential aid to user's safety and retaining a high level of performance.
- Do not use the handy blower with worn or damaged parts. Parts must be replaced, or repaired. Replace worn or damaged parts with Honda genuine parts. Non equivalent quality parts may damage the machine and be prejudicial to your safety.

## To ensure safe operation

## **Operator Responsibility**

- Injury caused by vibration and cold:
  - You may feel the prickling or burning pain in your fingers, and the fingers may lose color and feeling depending on your constitution. It is believed that these symptoms are brought by vibration and/or exposure to cold. The specific trigger point of these symptoms are not identified yet, but observe the following instructions.
  - \* Limit the amount of time you spend operating the handy blower in a day. A day's work should consist of the work with the handy blower and the other work without the hand-held equipment so you can limit the amount of time when your hands are exposed to the machine vibration.
  - \* Keep your body worm, especially your hands, wrists and arms.
  - \* Take your breaks at shorter intervals and arm exercises well to maintain good blood circulation. Do not smoke while working.
  - \* When you feel discomfort, redness and swelling of the fingers followed by whitening and loss of feeling, consult your doctor promptly.
- Injury caused by repeated operation:
  - Performing the repeated operation for a prolonged time may cause injury. Observe the following instructions to reduce the causes of the injury.
  - \* Avoid the repeated operation by using your wrist(s) in bent, stretched or twisted position.
  - \* Take your breaks regularly to minimize the effect of the repeated operation. Take your time when performing the repeated operation. Do not rush to operate the handy blower.
  - \* When your fingers, hands, wrists and/or arms are throbbing or numbed, consult your doctor.

## **Child Safety**

- Keep children indoors and supervised at all times when any outdoor handy blower is being used nearby. Young children move quickly and are attracted especially to the handy blower activity.
- Never assume children will remain where you last saw them. Be alert and turn the handy blower off if children enter the area.
- Children should never be allowed to operate the handy blower, even under adult supervision.

## To ensure safe operation

#### Fire and Burn Hazard

Gasoline is extremely flammable, and gasoline vapor can explode. Use extreme care when handling gasoline. Keep gasoline out of reach of children.

- Store fuel in containers specifically designed for this purpose.
- Refuel outdoors only, and do not smoke while refueling or handling fuel
- Add fuel before starting the engine. Never remove the cap of the fuel tank or add gasoline while the engine is running or when the engine is hot.
- If gasoline is spilled, do not attempt to start the engine but move the handy blower away from the area of spillage and avoid creating any source of ignition until gasoline vapours have dissipated.
- Tighten all fuel tanks and container caps securely.
- When you start the engine after refueling, be sure to start the engine at least 3 m (10 ft.) away from the refueling spot.
- Never store the handy blower with gasoline in the tank inside a building where fumes may reach an open flame, spark or high temperature source.
- Allow the engine to cool before storing in any enclosure.
- To reduce the fire hazard, keep the handy blower, especially the engine, muffler, the gasoline storage area as well, free of grass, leaves, or excessive grease.
- If the fuel tank has be to drained, this should be done outdoors, with a cold engine.

## **Carbon Monoxide Poisoning Hazard**

Exhaust contains poisonous carbon monoxide, a colorless and odorless gas. Breathing exhaust can cause loss of consciousness and may lead to death.

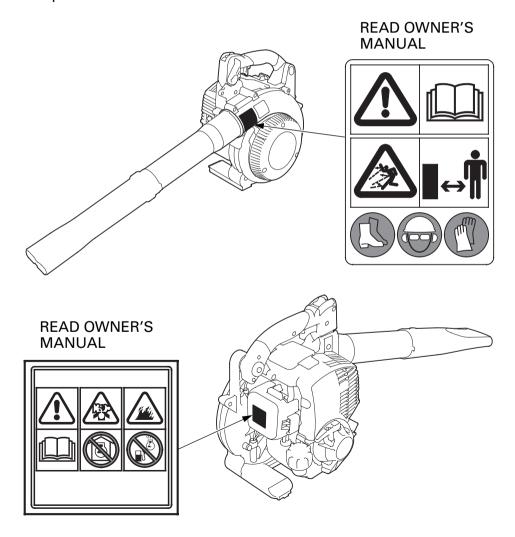
- If you run the engine in an area that is confined, or even partially enclosed area, the air you breathe could contain a dangerous amount of exhaust gas.
- Replace faulty muffler.
- Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.

## 2. SAFETY LABEL LOCATIONS

## **Safety Label Locations**

Your handy blower must be used with care. Therefore, decals have been placed on the machine to remind you pictorially of main precautions to take during use. Their meanings are explained on page 11.

These decals are considered as a part of the handy blower. Should one become detached or unreadable, contact your Honda dealer for its replacement.





 Honda handy blower is designed to give safe and dependable service if operated according to instructions.

Read and understand the Owner's Manual before operating the handy blower. Failure to do so could result in personal injury or equipment damage.



- Exhaust contains poisonous carbon monoxide, a colorless, odorless gas. Breathing carbon monoxide can cause loss of consciousness and may lead to death.
- If you run the handy blower in an area that is confined, or even partially enclosed area, the air you breathe could contain a dangerous amount of exhaust gas.
- Never run your handy blower inside a garage, house or near open windows or doors.



 keep all persons and pets away from the handy blower area.

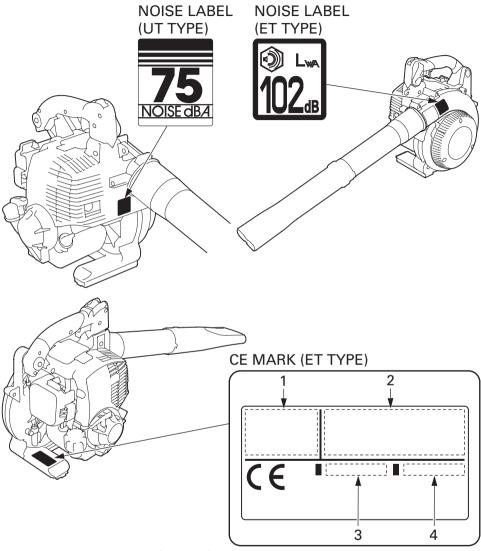


 Wear eye protection, helmet and other protective devices and protective clothings to protect your eyes and body from all objects (gravel, glass, wire, etc.) thrown by the handy blower.



Gasoline is highly flammable and explosive.
 Turn the engine off and let it cool before refueling.

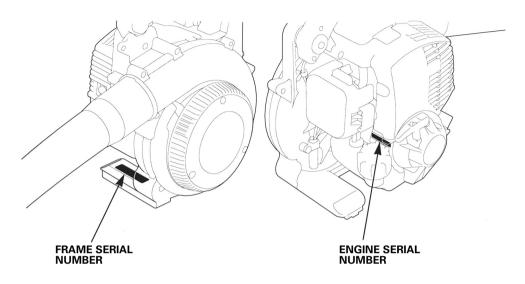
#### **CE Mark and Noise Label Locations**



- 1. Name and address of manufacturer
- 2. Name and address of authorized representative and importer
- 3. Model
- 4. Year of manufacture

Name and address of manufacturer, authorized representative and importer are written in the "EC Declaration of Conformity" CONTENT OUTLINE in this Owner's Manual.

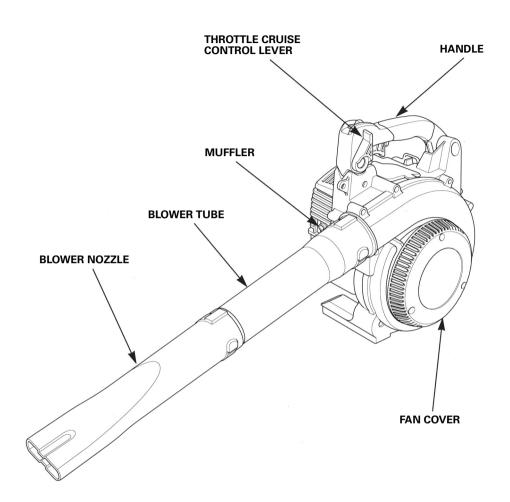
## **Serial Number Location**

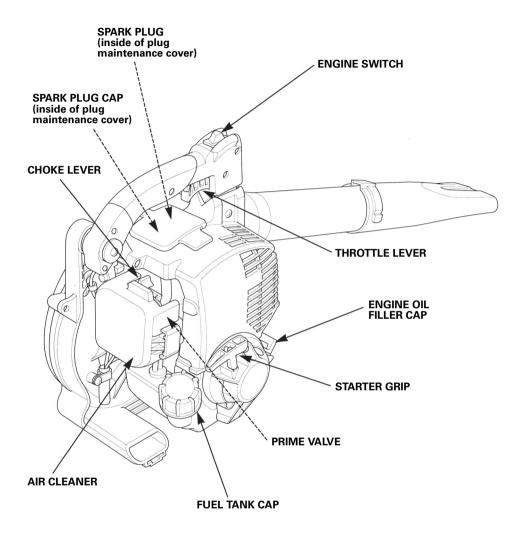


Record the frame serial number and engine serial number in the space below. You will need these numbers when ordering parts.

Frame serial number: _		
Engine serial number		

# 3. COMPONENT IDENTIFICATIONS





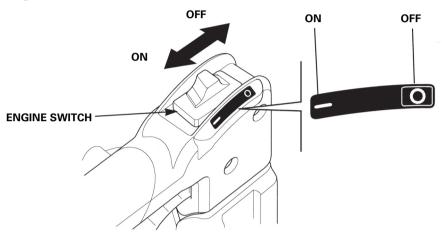
## 4. CONTROLS

## **Engine switch**

The engine switch enables and disables the ignition system.

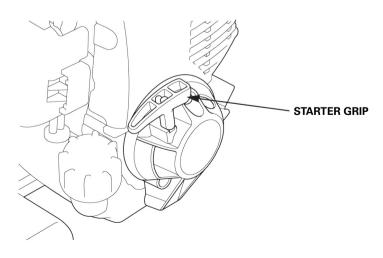
The engine switch must be in the ON position for the engine to run and to start the blower.

Turning the engine switch to the OFF position stops the blower and engine.



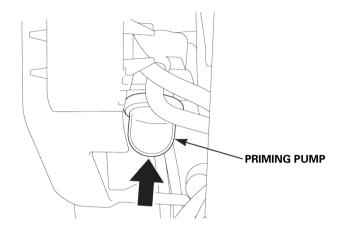
#### **Recoil starter**

Pulling the starter grip operates the recoil starter to crank the engine for starting.



## **Priming pump**

Pressing the priming pump feeds the fuel from the fuel tank to the carburetor. This procedure is necessary for starting the engine.

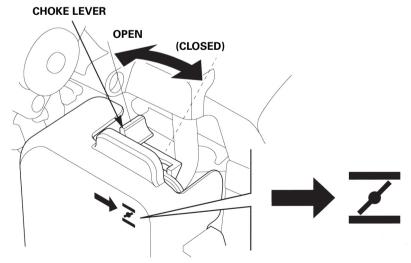


#### **Choke lever**

The choke lever opens and closes the choke valve in the carburetor.

The CLOSED position enriches the fuel mixture for starting a cold engine.

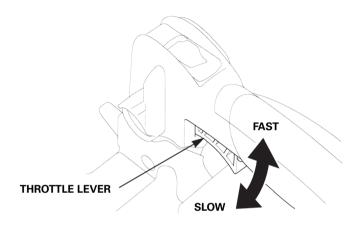
The OPEN position provides the correct fuel mixture for operation after starting, and for restarting a warm engine.



#### Throttle lever

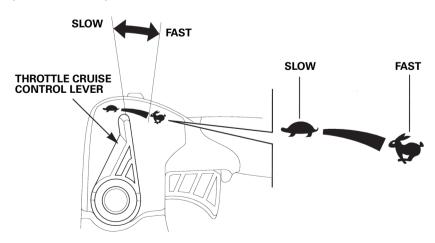
The throttle lever controls the engine speed.

Operate the throttle lever to run the blower.



#### Throttle cruise control lever

The throttle cruise control lever holds the engine speed at high speed by squeezing the throttle lever when the engine is running and moving the throttle cruise control lever at the FAST position. Move the throttle cruise control lever to the SLOW position to hold the engine speed at low speed.



For safe and efficient blowing, always make a pre-operation inspection before operating.

#### **A** WARNING

Perform a pre-operation inspection on firm, level surface with the engine stopped and spark plug cap removed from the spark plug.

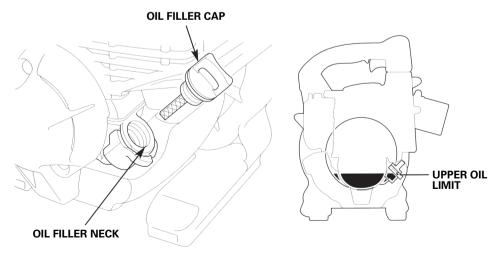
### Check the engine oil level

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

- 1. Place the handy blower on a level surface and remove the oil filler cap.
- 2. Check the oil level: It should reach to the edge of the oil filler neck, and check the engine oil for contamination and deterioration.
- 3. If the oil level is low, fill to the edge of the oil filler neck with the recommended oil.
  - If the oil is contaminated or deteriorated, replace it (see page 38).
- 4. Reinstall the oil filler cap.

Check the oil level and replenish oil up to the top of the oil filler neck if the engine is operated for more than 10 hours continuously.

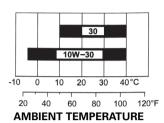
## ENGINE OIL CAPACITY: 0.08 L (0.08 US qt, 0.07 Imp qt)



#### Recommended oil:

Use 4-stroke motor oil that meets or exceeds the requirements for API service classification SE or later (or equivalent). Always check the API service label on the oil container to be sure it includes the letters SE or later (or equivalent).

SAE 10W-30 is recommended for general use. Other viscosities shown in the chart may be used when the average temperature in your area is within the indicated range.



CAUTION: Using non-detergent oil or 2-stroke engine oil could shorten the engine's service life.

#### Check the fuel level

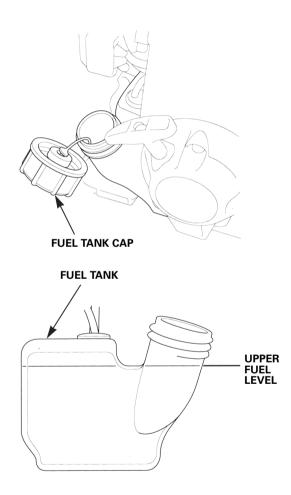
Use automotive unleaded gasoline with a Research Octane Number of 91 or higher (a Pump Octane Number of 86 or higher).

Never use stale or contaminated gasoline or an oil/gasoline mixture. Avoid getting dirt or water in the fuel tank.

#### **A** 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 engine is refueled or where gasoline is stored.
- Do not overfill the fuel tank (there should be no fuel in the filler neck). After refueling, make sure the tank cap is closed properly and securely.
- Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.
- Avoid repeated or prolonged contact with skin or breathing of vapor. KEEP OUT OF REACH OF CHILDREN.

- 1. Check the fuel level visually from outside of the fuel tank while keeping the fuel filler neck upright.
- 2. If the fuel level is low, refuel the fuel tank up to the level as specified. Remove the fuel tank cap gradually to release a pressured air in the fuel tank. Fuel in the fuel tank may spout out, if the fuel tank cap is removed quickly.



#### NOTF:

Gasoline spoils very quickly depending on factors such as light exposure, temperature and time.

In worst cases, gasoline can be contaminated within 30 days. Using contaminated gasoline can seriously damage the engine (carburetor clogged, valve stuck).

Such damage due to spoiled fuel is disallowed from coverage by the warranty.

To avoid this please strictly follow these recommendations:

- Only use specified gasoline (see page 21).
- Use fresh and clean gasoline.
- To slow deterioration, keep gasoline in a certified fuel container.
- If long storage (more than 30 days) is foreseen, drain fuel tank and carburetor (see pages 50).

## Gasoline containing alcohol

If you decide to use a gasoline containing alcohol (gasohol), be sure its octane rating is at least as high as that recommended by Honda. There are two types of "gasohol": one containing ethanol, and the other containing methanol.

Do not use gasohol that contains more than 10% ethanol. Do not use gasoline containing more than 5% methanol (methyl or wood alcohol) and that does not also contain co-solvents and corrosion inhibitors for methanol.

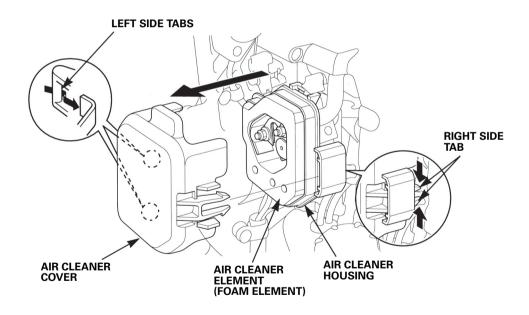
#### NOTE:

- Fuel system damage or engine performance problems resulting from the use of gasoline that contains more alcohol than recommended is not covered under the warranty.
- Before buying gasoline from an unfamiliar station, first determine if the gasoline contains alcohol, if it does, find out the type and percentage of alcohol used.
  - If you notice any undesirable operating symptoms while using a particular gasoline. Switch to a gasoline that you know contains less than the recommended amount of alcohol.

#### Check the air cleaner elements

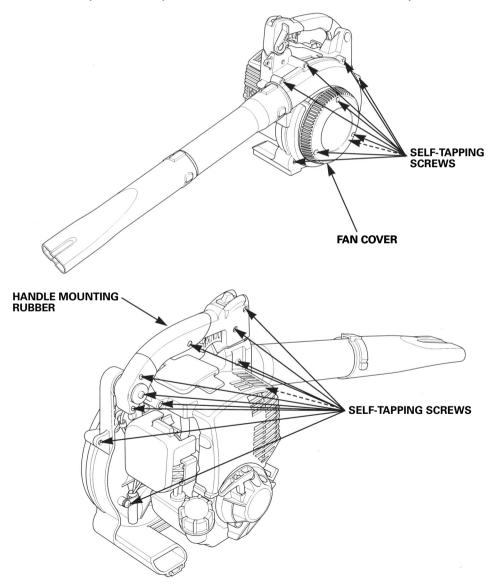
# CAUTION: Never run the engine without air cleaner; rapid engine wear will result.

- 1. Move the choke lever to the full closed position.
- 2. Open the air cleaner cover by pushing the right side tabs of the air cleaner cover. Using the left side tabs as the pivoting points, turn the air cleaner cover and remove it from the air cleaner housing.
- 3. Remove the air cleaner element (foam element) from the air cleaner housing. Check the element for dirt.
- 4. If it is dirty, clean or replace the element (foam element). (Cleaning: see page 41)
- 5. Reinstall the removed parts in the reverse order of removal.



## Check the self-tapping screws

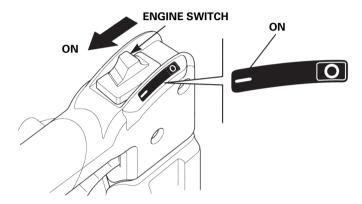
- 1. Check the self-tapping screws for looseness. Tighten them securely if necessary.
- 2. Check the handle for looseness and tighten it securely if necessary. Check the handle mounting rubber for damage and replace if necessary. Consult your authorized Honda dealer for replacement.



## 6. STARTING THE ENGINE

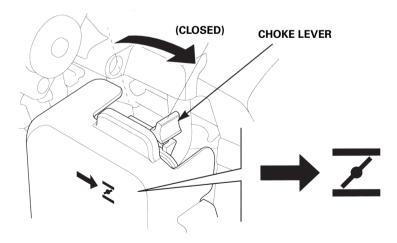
## **A** WARNING

- Exhaust gas contains poisonous carbon monoxide. Never run the engine in an enclosed area. Be sure to provide adequate ventilation.
- Start the engine in a place away from the people, pets, and surrounding buildings. Be sure there are no obstacles in the working area.
- 1. Turn the engine switch to the ON position.

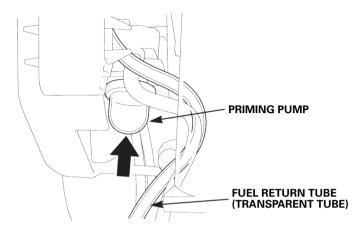


2. To start a cold engine, move the choke lever to the CLOSED position.

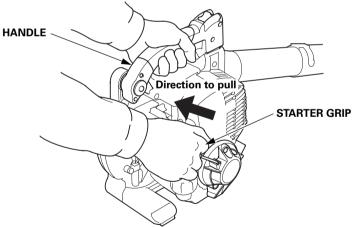
To restart warm engine, leave the choke lever in the OPEN position.



3. Press the priming pump several times until a flow in the fuel return tube (transparent tube) is visually noticed.



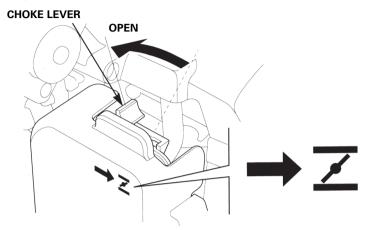
4. Hold the handy blower by the handle securely. Pull the starter grip lightly until you feel resistance, then pull briskly in the direction of the arrow as show below. Return the starter grip gently.



#### CAUTION:

- Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter grip and the other parts.
- Damage may result if the starter grip is pulled while the engine is running.
- Place the handy blower on a firm level ground before starting the engine.
- Be sure that the people and pets are away from the handy blower, especially behind you, before pulling the starter grip.

5. If the choke lever has been moved to the CLOSED position to stat the engine, gradually move it to the OPEN position as the engine warms up.



#### **Hot Restart**

If the engine is operated at higher ambient temperatures then turned off and allowed to sit for a short time, it may not restart on the first pull.

If necessary, use the following procedure:

#### IMPORTANT SAFETY PRECAUTION

Turn the engine switch to the OFF position before performing the following procedure. This will prevent the engine from starting and running at fast speed when the throttle is in the full throttle position. If the engine starts, with the throttle in the full throttle position, the blower can move at the fast speed. This may result in personal injury.

- 1. Turn the engine switch to the OFF position.
- 2. Move the choke lever to the OPEN position.
- 3. Hold the throttle lever in the full throttle position (FAST).
- 4. Pull the starter grip 3 to 5 times.
- 5. Follow the STARTING THE ENGINE procedure on page 26 and start the engine with the choke lever in the OPEN position.

Read and understand the safety instructions on pages 4 to 9 before operating the handy blower.

If you notice any abnormal sound, smell, vibration or other unusual signs, stop the engine immediately and consult your authorized Honda dealer.

#### **A** WARNING

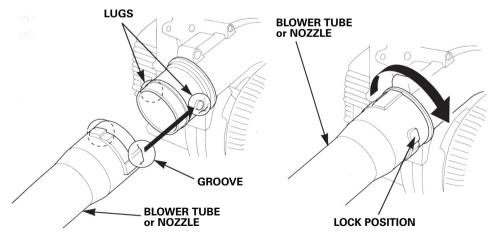
• To reduce the risk of injury from contacting with rotating parts, stop the engine before installing or removing any attachments.

## Assembling and removing the blower tube and nozzle

- 1. Align the lugs on the blower port of the handy blower with the grooves in the blower tube or nozzle, and push it onto the blower port. Turn the blower tube or nozzle in the direction shown with the arrow until it locks.
- 2. Check the blower tube and nozzle for looseness and that they are locked in position.

#### NOTE:

Check the blower tube and nozzle for looseness and locked in position. Do not use the handy blower if it is loose. Damaged blower can cause a personal injury or equipment damage.



3. Removal is the reverse order of installation.

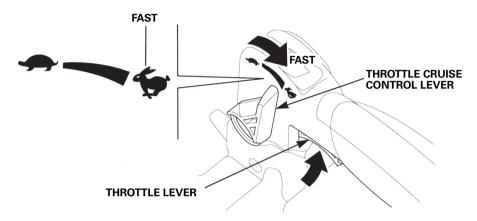
CAUTION: Do not run the engine with the blower tube and nozzle removed from the handy blower. The engine speed drops possibly causing engine malfunction.

## Starting the engine

Start the engine according to the engine start procedure (see pages 26).

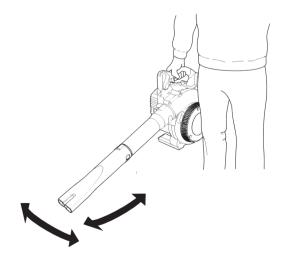
## **Blower operation**

1. Squeeze the throttle lever while the engine is running, and move the throttle cruise control lever to the FAST position.

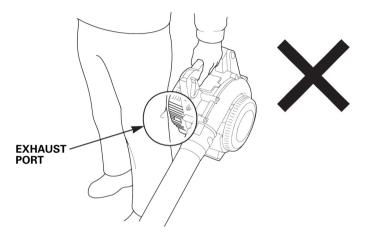


CAUTION: If you notice any abnormal rotation of the handy blower, consult your authorized Honda dealer to have it check or repair your handy blower.

2. Hold the handy blower with your right or left hand. Blow the dead leaves, etc. and collect them by moving the handy blower right and left and back and forth.



CAUTION: When operating the handy blower with your left hand, do not hold it in the position shown (i.e. exhaust port close to or in contact with your body). You can get burned with the heat of the exhaust air.



 This handy blower is designed to operate with one hand. However, it also can be operated while holding it by the handle and the support at the underside of the engine with two hands.



#### NOTE:

Move the throttle cruise control lever to the "SLOW" position, release the throttle lever, and move the engine switch to the "OFF" position before you leave from the handy blower.

#### How to use the nozzle

This handy blower is designed to be applicable to various cleaning work by using the fan nozzle or round nozzle (optional part).

- The fan nozzle produces wide and strong airflow. You can control
  application of this airflow to the working area very precisely.
  This fan nozzle is excellent to blow the flat surface for collection of
  sawdust, leaves, cut grass, etc. thoroughly.
- The round nozzle (optional part) is excellent for collection on uneven surfaces (e.g. field, lawn yard, etc.)

For efficient use of the handy blower:

To minimize the blowing time, collect the debris, etc. with a rake or broom before blowing, if they are scattered in wide area. If the debris, etc. are stack hard, loosen them with a rake or broom before blowing.

To minimize the debris that came to the surface and contamination:

- When the debris, etc. that you are to collect are very dusty, remove the dust a little from the surface, or dampen surfaces.
- Expand the blower nozzle enough to apply the airflow as close to the ground surface as possible.
- Blow the debris, etc. with care not to let the blown debris hit on the people, children, pets, open windows and the just cleaned cars.
- Take care not to let the blown debris hit on the neighbors' property.
- Clean the working area after blowing.

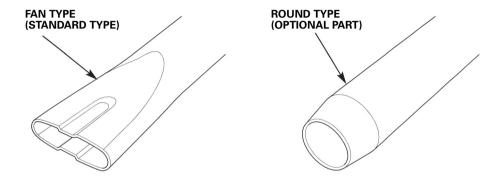
## To minimize the noise:

- Operate the handy blower only in the daytime of weekday. Avoid operation at the time when the people are sleeping or resting (e.g. early in the morning, late at night, or at noon recess). Observe the local regulations and work at an adequate time. Normally, we recommend that you operate the handy blower in the daytime of weekday when the people are working, too. Operation on weekend and holiday is not recommended so you do not bother the neighboring.
- Use one handy blower at a time if possible. The fewer the number of the engines is, the smaller the noise is generated.
- Operate the handy blower at the slower throttle speed as much as possible.
- Check the handy blower, especially the muffler, intake air port and the air filter before operation.

Like cleaning the terrace and entrance by spraying water with a hose, this handy blower is designed to be very good to collect the grass, debris, etc. adequately on the lawn and yard.

## Nozzle shape

Two types of the nozzle in shape are available as shown.



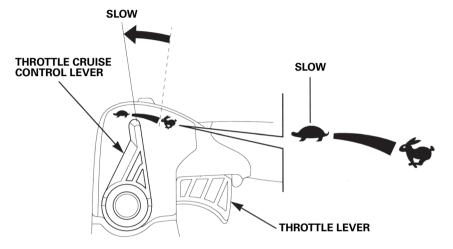
# 8. STOPPING THE ENGINE

## In an emergency:

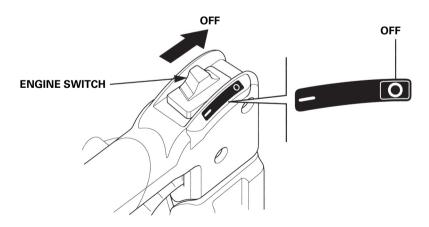
Turn the engine switch OFF.

## Normal stop:

1. Release the throttle lever and move the throttle cruise control lever to the SLOW position.



2. Turn the engine switch to the OFF position.



#### **A** WARNING

- Before performing any maintenance, place the handy blower on a level surface, stop the engine and remove the spark plug cap to be certain the engine will not start accidentally.
- The handy blower should be serviced by an authorized Honda dealer untess the owner has proper tools and service data and feels he is mechanically qualified.

CAUTION: Use only genuine Honda parts or their equivalent for maintenance or repair. Replacement parts which are not of equivalent quality may damage the handy blower.

Periodic inspection and adjustment of the Honda HHB25 are essential if high level performance is to be maintained. Regular maintenance will also help to extend service life. The required service intervals and the kind of maintenance to be performed are described in chart on the following page.

## Maintenance schedule

REGULAR SERVICE Perform at every in month or operating whichever comes fi	dicated hour interval,	Each use	First month or 10 hrs.	month s or	Every 6 month s or 50 hrs.	Every year or 100 hrs.	Every 2 years or 300 hrs.	Refer to page
Engine oil	Check level	0						P. 19
	Change		0					P. 38
Air cleaner	Check	0						P. 24
	Clean			o (1)				P. 40
Spark plug	Check-adjust					0		P. 42
	Replace						0	P. 42
Throttle cable	Check	0						P. 44
Throttle lever	Check	0						P. 44
Engine cooling fins	Check				0			P. 46
Nuts, bolts, fasteners (Retighten if necessary)	Check	0						P. 25
Fuel tank	Clean					О		P. 49
Fuel filter	Check					0		P. 47
Idle speed	Check-adjust					o (2)		_
Valve clearance	Check-adjust					o (2)		_
Combustion chamber	Clean	After every 300 hrs. (2)			_			
Fuel tubes	Check	Every 2 years (Replace if necessary) (2)			_			
Oil tube	Check	Every 2 years (Replace if necessary) (2)			_			

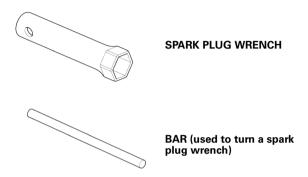
#### NOTE:

- (1) Service more frequently when used in dusty areas.
- (2) These items should be serviced by your servicing dealer.
- (3) Log hours of operation to determine proper maintenance intervals.

#### **Tool kit**

The tools supplied are necessary for performing some periodic maintenance, simple adjustments and repairs.

Store the tools in the designated place.



#### **Engine oil change**

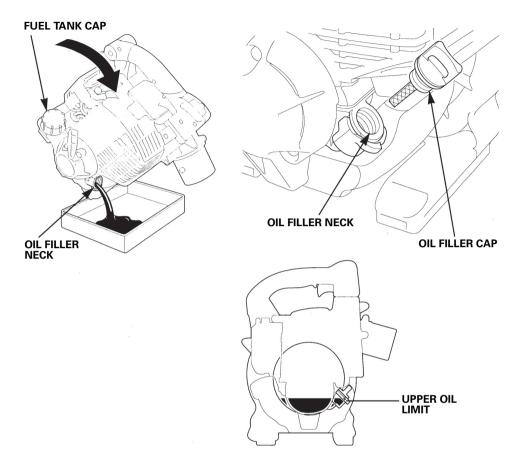
CAUTION: If the engine has been running, the engine, muffler and the engine oil are very hot and they remain hot for a while after stopping the engine. To protect you from burn, wait until they cool down before starting the oil change.

NOTE: Drain the oil while the engine is still warm to assure rapid and complete draining.

- 1. Check the fuel tank cap is tightened.
- 2. Remove the oil filler cap and drain the oil into the oil container by tipping the engine toward the oil filler neck.
- 3. Refill with the recommended oil (see page 20) and check the oil level (see page 19).
- 4. Install the oil filler cap.

## ENGINE OIL CAPACITY: 0.08 L (0.08 US qt, 0.07 Imp qt)

Wash your hands with soap and water after handling used oil.



#### NOTE:

Please dispose of used motor 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 trash or pour it on the ground.

If you are not sure of the disposal, consult your authorized Honda dealer.

- The engine oil deteriorates naturally. Check and change the oil regularly.
- Tighten the oil filler cap securely for prevention of oil leakage.

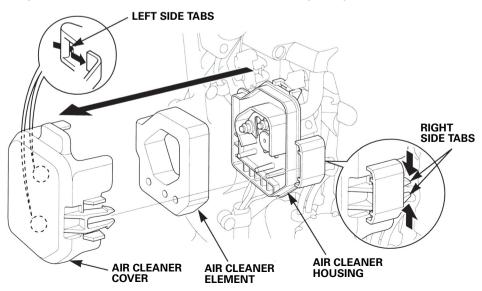
#### Air cleaner service

A dirty air cleaner will restrict airflow to the carburetor. To prevent carburetor malfunction, service the air cleaner regularly. Service more frequently when operating the handy blower in extremely dusty areas.

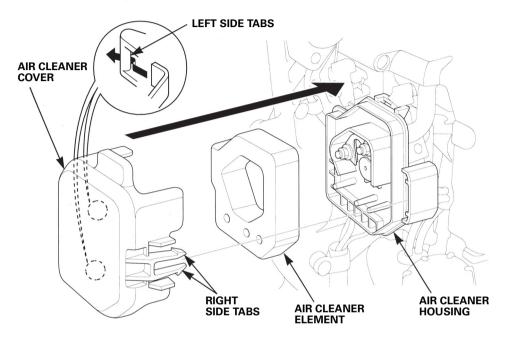
A WARNING Never use gasoline or low flash point solvents for cleaning the air cleaner element. A fire or explosion could result.

# CAUTION: Never run the engine without the air cleaner. Rapid engine wear will result.

- 1. Move the choke lever to the CLOSED position.
- 2. Open the air cleaner cover by pushing the right side tabs of the air cleaner cover. Using the left side tabs as the pivoting points, turn the air cleaner cover and remove it from the air cleaner housing.
- 3. Remove the air cleaner element (foam element) from the air cleaner housing. Check the element for dirt.
- 4. Clean the foam element in the lukewarm soapy water and rinse it out. Squeeze the foam element firmly and let it dry thoroughly. Or, clean the foam element in a non-flammable or high flash point solvent and dry it thoroughly. Soak the element in clean engine oil and squeeze out the excess oil. Note that the engine will emit white smoke if there is too much oil in the foam element. Replace the foam element if it is excessively dirty.



- 5. Clean inside the air cleaner cover and air cleaner housing with a moistened cloth.
- 6. Reinstall the air cleaner element (foam element) and the air cleaner cover securely.



### Spark plug service

### Recommended spark plug: CMR5H (NGK)

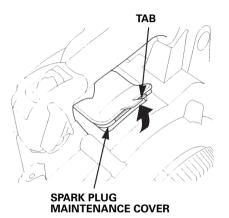
To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.

A WARNING If the engine has been running, the spark plug and muffler are very hot. Be careful not to touch the spark plug and muffler.

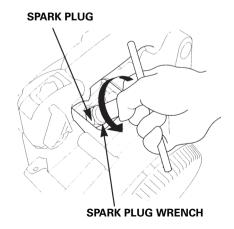
CAUTION: Never use a spark plug of incorrect heat range.

## <Cleaning>

1. Pull up the smaller tab and turn up the spark plug maintenance cover.

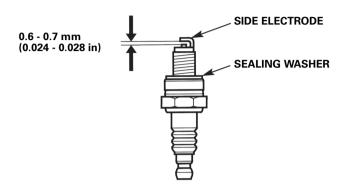


- Remove the spark plug cap and use the proper size spark plug wrench to remove the spark plug.
- 3. Visually inspect the spark plug.
  Discard it if there is apparent wear or the insulator is cracked or chipped. Clean the spark plug with a wire brush if it is to be reused.



4. Measure the plug gap with a feeler gauge.

The gap should be 0.6 – 0.7 mm (0.024 – 0.028 in). Correct as necessary by carefully bending the side electrode.



- 5. Check that the sealing washer is in good condition and thread the spark plug in by hand to prevent cross-threading.
- 6. After the spark plug is seated, tighten with a spark plug wrench to compress the washer.

#### NOTF:

After a new spark plug has been seated by hand, it should be tightened 1/2 turn with a wrench to compress its washer. If a used plug is being installed, it should only require 1/8 to 1/4 turn after being seated.

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

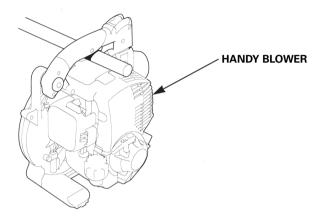
- 7. Attach the spark plug cap.
- 8. Put the spark plug maintenance cover back.

### Throttle cable inspection and adjustment

Check the throttle cable free play and adjust if necessary.

#### <Adjustment>

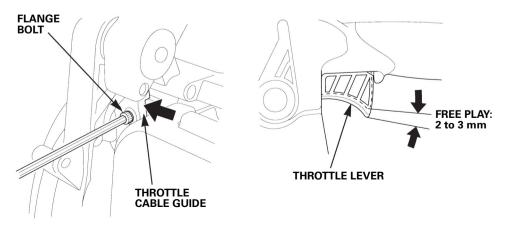
1. Insert a rod or equivalent material under the handle. Raise the handy blower off the ground by lifting the rod up.



#### NOTE:

The handle of this handy blower features the vibration-proof structure. Adjust the throttle cable free play by lifting the handle up, or the engine speed can increase when holding the handle.

2. Loosen the flange bolt of the throttle cable guide. Adjust the throttle cable free play by pushing the guide in the direction shown with the arrow. Adjust the free play so that it is 2 to 3 mm at the tip of the throttle lever.



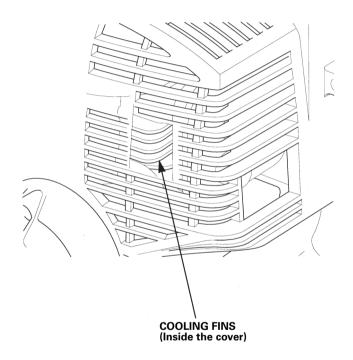
#### NOTE:

We recommend that you use a ball-pointed hex. wrench for smooth adjustment of the throttle cable guide.

- 3. Tighten the flange bolt securely.
- 4. After adjusting the throttle cable, start the engine and check that the throttle lever functions properly. The handy blower should turn at high speed when the throttle lever is squeezed, and it should turn at low speed when the lever is released.
- 5. If adjustment cannot be made properly, consult your authorized Honda dealer.

## **Engine cooling fins inspection**

Inspect the cooling fins visually through the cover. If there are dry grass, leaves and mud clogged, consult your authorized Honda power equipment dealer for cleaning it.

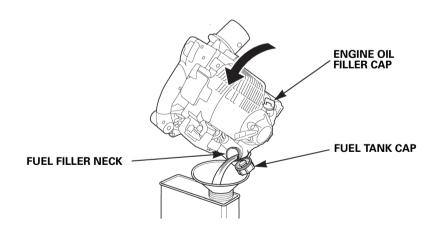


#### Fuel filter service

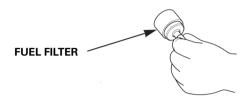
Note that the clogged fuel filter can cause poor engine performance.

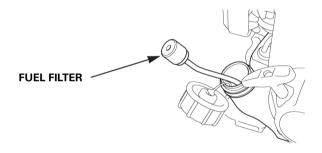
A WARNING Gasoline is extremely flammable and is explosive under certain conditions. You can be burned or seriously injured when handling fuel. Observe the following when servicing the fuel tank strainer.

- Stop the engine.
- Service in a well-ventilated area.
- Keep heat, sparks, and flame away. Do not smoke.
- Do not spill the gasoline. If you spilled the gasoline, wipe it up immediately and dispose of the cloth or shop towel you wiped the spilled gasoline in a manner that is compatible with the environment.
- 1. Be sure that the engine oil filler cap is tightened securely.
- 2. Remove the fuel tank cap and drain the gasoline into the container by tipping the engine toward the fuel filler neck.



- 3. Pull out the fuel filter with the mechanic's wire from the fuel filler neck gently.
- 4. Check the fuel filter for contamination. If the fuel filter is dirty, wash it gently with non-flammable or high flash point solvent. If the fuel filter is excessively dirty, replace it.





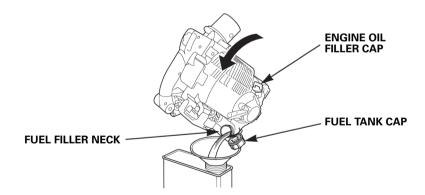
5. Reinstall the fuel filter into the fuel tank and tighten the fuel tank cap securely.

#### Fuel tank cleaning

Water and dust, dirt or foreign material in the fuel tank cause a poor engine performance.

A WARNING Gasoline is extremely flammable and is explosive under certain conditions. You can be burned or seriously injured when handling fuel. Observe the following when cleaning the fuel tank.

- Stop the engine.
- Clean in a well-ventilated area.
- Keep heat, sparks, and flame away. Do not smoke.
- Do not spill the gasoline. If you spilled the gasoline, wipe it up immediately and dispose of the cloth or shop towel you wiped the spilled gasoline in a manner that is compatible with the environment.
- 1. Be sure that the engine oil filler cap is tightened securely.
- 2. Remove the fuel tank cap and drain the gasoline into a container by tipping the engine toward the fuel filler neck.



- 3. Pull out the fuel tank filter with the mechanic's wire from the fuel filler neck gently.
- 4. Remove the water and dirt stood in the fuel tank by rinsing the inside of the fuel tank with non-flammable or high flash point solvent.
- 5. Reinstall the fuel tank filter into the fuel tank and tighten the fuel tank cap securely.

## 10. STORAGE

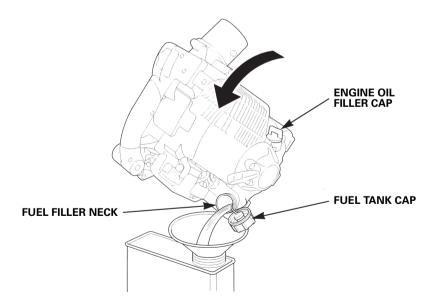
Proper storage preparation is essential for keeping your handy blower trouble free and looking good. The following steps will help to keep rust and corrosion from impairing your handy blower.

#### CAUTION:

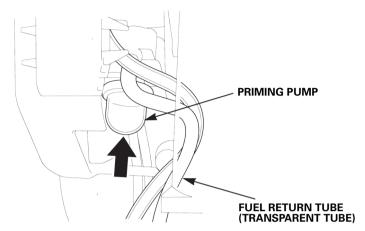
- If the handy blower has been running, the engine is very hot; allow it to cool before proceeding.
- Place the handy blower on a level surface and remove the spark plug cap to be certain the engine will not start accidentally.
- Clean all exterior surfaces, touch up any damaged paint, and coat other areas that may rust with a light film of oil.
- 2. Drain the fuel;

A WARNING Gasoline is extremely flammable and is explosive under certain conditions. Your can be burned or seriously injured when handling fuel. Observe the following.

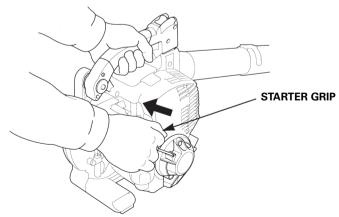
- a. Be sure that the engine oil filler cap is tightened securely.
- b. Remove the fuel tank cap and drain the fuel into the container by tipping the engine toward the fuel filler neck.



c. Press the priming pump several times until all fuel left in the fuel return tube is returned into the fuel tank.



- d. Tip the engine toward the fuel filler neck again to drain the fuel left in the fuel tank into the container.
- e. Tighten the fuel tank cap securely after draining the fuel completely.
- 3. Change the engine oil (see page 38).
- 4. Clean the air cleaner (see page 40).
- 5. Remove the spark plug and pour a couple of drops of clean engine oil into the cylinder.
- 6. Crank the engine several revolutions to distribute the oil, then reinstall the spark plug. Pull the starter grip slowly until resistance is felt.



7. Cover the handy blower to keep out dust.

## 11. TRANSPORTING

A WARNING Gasoline is extremely flammable and explosive under certain conditions. Do not smoke or allow flames or sparks in the area.

If the handy blower has been used, allow it to cool for at least 15 minutes before loading on the transporting vehicle. A hot engine and exhaust system can burn you and can ignite some material.

To prevent fuel spillage when transporting, the handy blower should be secured in its upright position, with the engine switch OFF and the fuel tank cap securely tighten.

Take care not to drop or strike the handy blower when transporting. Do not place heavy objects on the handy blower.

#### When the engine does not start:

- 1. Is the engine switch in the ON position?
- 2. Is there fuel in the fuel tank (see page 22)?

A WARNING Gasoline is extremely flammable and explosive under certain conditions. Do not smoke or allow flames or sparks in the area.

- 3. Is gasoline reaching the carburetor?

  To check, press the priming pump several times (see page 27).
- 4. Is the spark plug in good condition (see page 42)?
- 5. If the engine still does not start, take the handy blower to an authorized Honda dealer.

## 13. SPECIFICATIONS

Model	HHB25
Power product description code	UBAJ

#### **Frame**

Overall length	Body only	335 mm (13.2 in)	
	With tube and nozzle	965 mm (38.0 in)	
Overall width		265 mm (10.4 in)	
Overall height		370 mm (14.6 in)	
Dry mass (weight) (Without tube and nozzle)		4.5 kg (9.9 lbs)	
Fully supplied mass (weight)		5.2 kg (11.6 lbs)	
Maximum air folw (With fan nozzle type)		600 m <sup>3</sup> /h	
Maximum wind speed (With fan nozzle type)		70 m/sec.	

#### **Engine**

Model	GX25T
Engine description code	GCALT
Engine type	4-stroke, overhead cam, 1 cylinder
Displacement	25.0 cm <sup>3</sup> (1.5 cu-in)
Bore and stroke	35.0 x 26.0 mm (1.4 x 1.0 in)
Engine Net Power (in accordance with SAE J1349*)	0.72 kW (1.0 PS)/7,000 rpm
Engine Max. Net Torque	1.0 N·m
(in accordance with SAE J1349*)	(0.10 kgf·m, 0.74 lbf·ft)/5,000 rpm
Ignition system	Transistor magneto
Engine oil capacity	0.08 L (0.08 US qt, 0.07 Imp qt)
Fuel tank capacity	0.32 L (0.08 US gal, 0.07 Imp gal)
Spark plug	CMR5H (NGK)

<sup>\*:</sup>The power rating of the engine indicated in this document is the net power output tested on a production engine for the engine model and measured in accordance with SAE J1349 at 7,000 rpm (Engine Net Power) and at 5,000 rpm (Engine Max. Net Torque). Mass production engines may vary from this value.

Actual power output for the engine installed in the final machine will

Actual power output for the engine installed in the final machine will vary depending on numerous factors, including the operating speed of the engine in application, environmental conditions, maintenance, and other variables.

## **Noise and Vibration**

Туре	ET	UT
Sound pressure level at operator's ears Reference to EN 15503: 2009	87 dB (A)	_
Uncertainty	1 dB (A)	_
Measured sound power level (2000/14/EC, 2005/88/EC)	101 dB (A)	-
Uncertainty	1 dB (A)	
Guaranteed sound power level (2000/14/EC, 2005/88/EC)	102 dB (A)	-
Sound pressure level Australia New South Wales standard (At 7,250 rpm)	1	75 dB (A)
Vibration level at hand arm EN 15503: 2009	6.3 m/s <sup>2</sup>	
Uncertainty (EN12096: 1997 Annex D)	2.5 m/s <sup>2</sup>	

## 14. INSTALLATION OF KIT PARTS (EWT type)

#### **SAFETY**

### The Importance of Proper Assembly

Proper assembly is essential to operator safety and the reliability of the machine. Any error or oversight made by the person assembling and servicing a unit can easily result in faulty operation, damage to the machine, or injury to the operator.

#### **A** WARNING

Improper assembly can cause an unsafe condition that can lead to serious injury or death.

Follow the procedures and precautions in the assembly instructions carefully.

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

## **A** WARNING

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

Follow the procedures and precautions in this manual carefully.

#### **Important Safety Precautions**

- Make sure you have a clear understanding of all basic shop safety practices and that you are wearing appropriate clothing and safety equipment. When performing this assembly, be especially careful of the following:
  - ☐ Read the instructions before you begin and be sure you have the tools and skills required to perform the tasks safely.
- Make sure the engine is off before you begin any maintenance or repairs. This will help eliminate several potential hazards:
  - ☐ Carbon monoxide poisoning from engine exhaust.

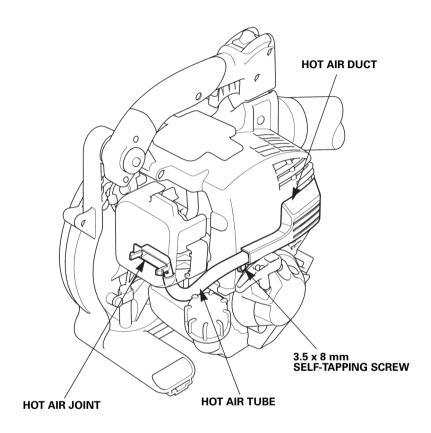
    Operate outside away from open windows or doors.
  - Burns from hot parts.

    Let the engine and exhaust system cool before touching.
  - ☐ Injury from moving parts.

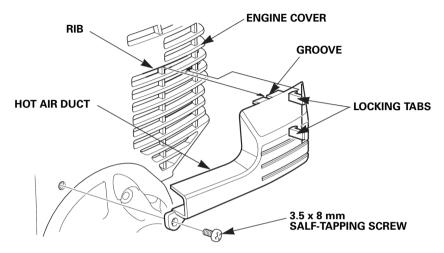
Do not run the engine unless the instruction tells you to do so. Even then, keep your hands, fingers, and clothing away. Do not run the engine when any protective guard or shield is removed.

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

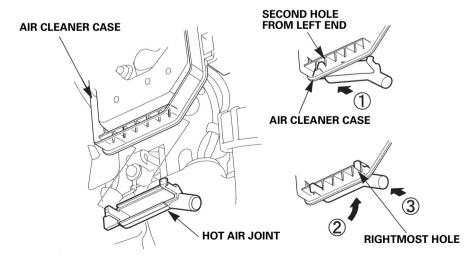
## **HOT AIR TUBE KIT INSTALLATION**



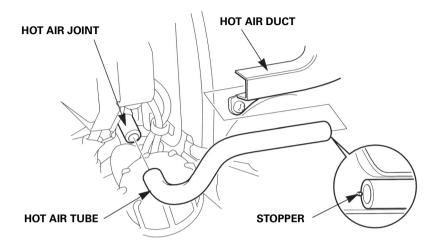
- 1. Set the hot air duct on the engine top cover by aligning the groove and locking tabs with the ribs of the engine cover as shown.
- 2. Tighten the 3.5 x 8 mm self-tapping screw securely.



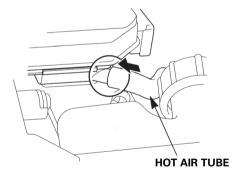
- 3. Remove the air cleaner cover (see page 24).
- 4. Install the hot air joint to the air cleaner case as shown.
  Check that the locking tabs of the hot air joint lock against the ribs of the air cleaner case securely.



5. Install the hot air tube between the hot air duct and hot air joint as shown. Hot air duct side: Insert the hot air tube until the tube end comes in contact with the stopper.



Hot air joint side: Insert the hot air tube up to the base.



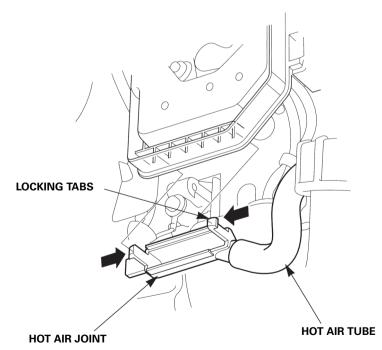
6. After installation, reinstall the air cleaner cover.

#### NOTE:

- Normally use the blower with the hot air tube installed, or it can cause icing.
- When the ambient temperature is 10°C (50°F) or above, be sure to remove the hot air tube in the following procedure before operation.
   Operating the blower with the hot air tube installed can cause overheat of the engine.

#### HOT AIR TUBE REMOVAL

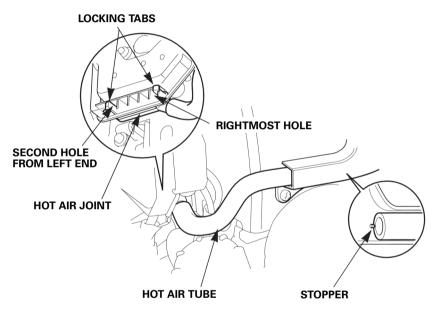
- 1. Remover the air cleaner cover (see page 24).
- 2. Pull out the hot air tube from the hot air duct.
- 3. Pushing the locking tabs of the hot air joint, move the hot air joint to the inner side to remove.
- 4. Store the hot air tube and hot air duct in an adequate place securely not to lose them.



5. Reinstall the air cleaner cover.

#### HOT AIR TUBE INSTALLATION

- 1. Remove the air cleaner cover (see page 24).
- Install the hot air joint to the air cleaner case.
   Check that the locking tabs of the hot air joint lock against the ribs of the air cleaner case securely.
- 3. Insert the hot air tube to the hot air duct.
  Insert until the tube end comes in contact with the stopper.



4. After installation, reinstall the air cleaner cover.