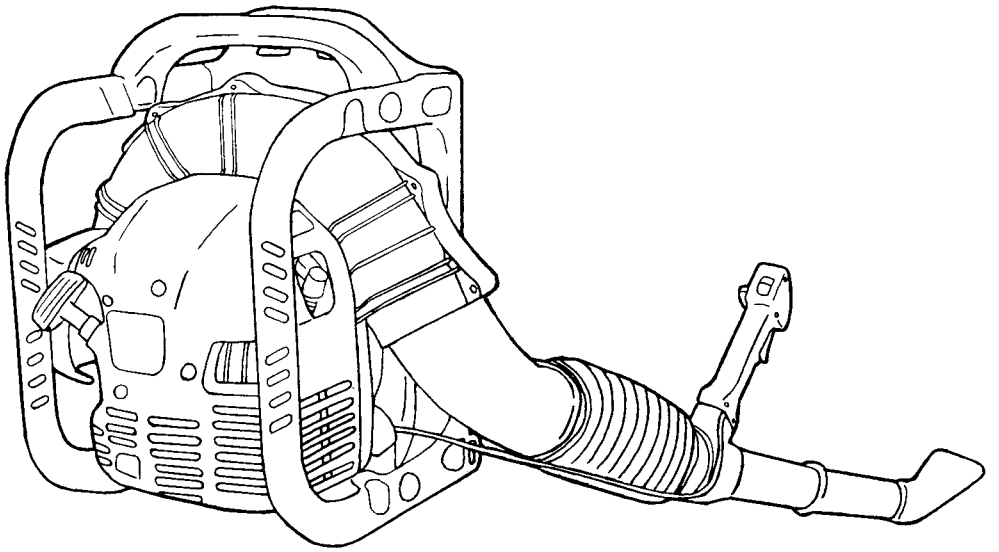
BLOWER

MODEL RBL500

INSTRUCTION MANUAL



WARNING:
To reduce the risk of injury, user must read and understand the instruction manual before using the blower.
Manufacturer reserves the right to change specifications without notice.
Specifications may differ from country to country.
Do only hand over the Blower together with this manual.

Thank you very much for selecting the MAKITA blower. We are pleased to be able to offer you the MAKITA blower which is the result of a long development programme and many ears of knowledge and experience.

The blower models RBL500 combines the advantages of state-of-the-art technology with ergonomic design, they are compact and represent professional equipment for a great variety of applications.

For your safety and best tool performance, be sure to read, understand and follow all the safety and operating procedures listed in the instruction manual before operation.

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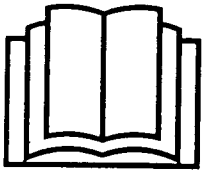


SYMBOLS

It is very important to understand the following symbols when reading this instructions manual.


WARNING/DANGER


Read, Understand and Follow Instruction Manual


Forbidden


No Smoking


No Open Flame


Protective Gloves must be Worn


Keep the Area of Operation Clear of All Persons and Pets


Wear Eye and Ear Protection


Fuel and Oil Mixture


Engine-manual Start

Emergency Stop


First Aid

Recycling

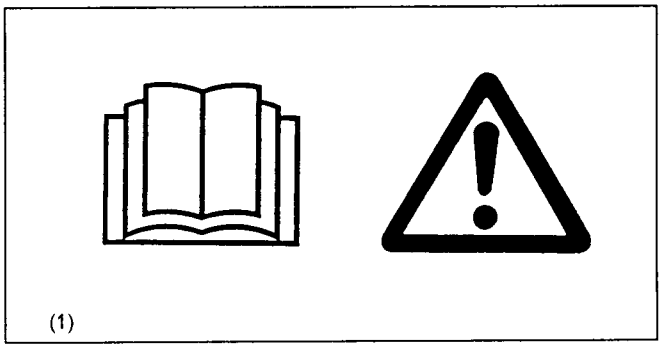
ON/START


OFF/STOP

SAFETY INSTRUCTIONS

GENERAL INSTRUCTIONS

- To ensure correct and safe operation, the user must read, understand and follow this instruction manual to assure familiarity with the handling of the blower (1). Users insufficiently informed will risk danger to themselves as well as others due to improper handling.
- It is recommended only to loan the blower to people who have proven to be experienced with blowers.
  Always hand over the instruction manual.
- First-time users should ask the dealer for basic instructions to familiarize oneself with the handling of a blower.
- Children and young persons aged under 18 years must not be allowed to operate the blower. Persons over the age of 16 years may however use the tool for the purpose of being trained only while under the direct supervision of a qualified trainer .
- Use blowers with the utmost care and attention.
- Operate the blower only if you are in good physical condition.
  Perform all work conscientiously and carefully. The user has to accept responsibility for others.
- Never use the blower while under the influence of alcohol or drugs(2).
- Do not use the blower when you are tired.
- **Save these instructions for future referral.**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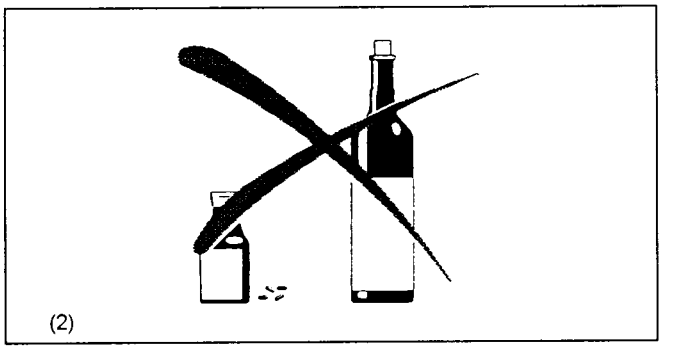
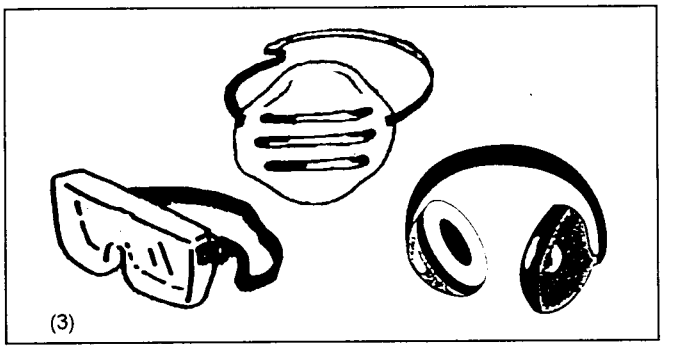

(2)

PERSONAL PROTECTIVE EQUIPMENT

- The clothing worn should be functional and appropriate, i. e. it should be tight-fitting but not cause a hinderance. Do not wear jewelry, clothing or long hair which could be drawn into the air intake.
- In order to avoid head-, eye-, hand- or foot injuries as well as to protect you hearing the following protective equipment and protective clothing must be used during operation of the blower.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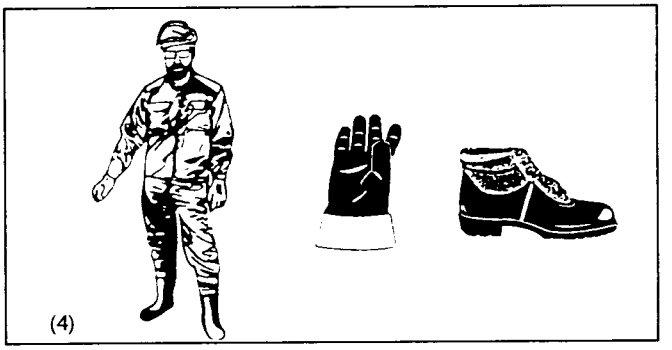
PAY PARTICULAR ATTENTION TO THE FOLLOWING REGULATIONS:

- Clothing must be sturdy and snug-fitting, but allow complete freedom of movement. Avoid loose-fitting jackets, flared or cuffed pants, scarfs, neck chains, unconfined long hair or anything that could be drawn into the air intake. Wear overalls or long pants to protect your legs. Do not wear shorts. (4)
- Blower noise may damage your hearing. Wear hearing protection. Continual and regular users should have their hearing checked regulary. (3)
- Use of gloves when working with the blower is recommended.
  Good footing is most important. Wear sturdy shoes with nonsrip soles. (4)
- Proper eye protection is a must. Even though the discharge is directed away from the operator, ricochets and bouncebacks can occur during blower operations. (3)
- Never operate a blower unless wearing goggles or properly fitted safety glasses with adequate top and side protection which comply with ANSI Z 87. 1 (or your applicable national standard).
- To reduce the risk of injury associated with the inhalation of dusty, use a face filter mask (3) in dusty conditions.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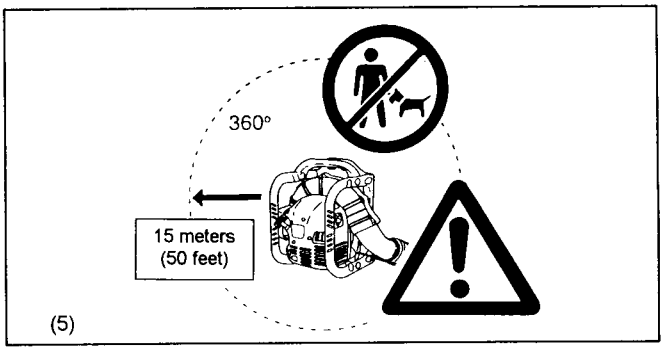
STARTING UP THE BLOWER

- Please make sure that there are no children or other people within a working range of 50feet or 15 meters (5), also pay attention to any animals in the working vicinity.
- **Before operating, always check that the blower is safe for operation:**
  Check the security of the throttle lever. The throttle lever should be checked for smooth and easy action. Check for proper functioning of the throttle lever lock. Check for clean and dry handles and test the function of the STOP switch. Keep handles free of oil and fuel.
- Before operation, check and follow all local and federal regulations on backpack blowers.
- Only start the blower positioned on the ground.
- Do not start it on the back.



(5)

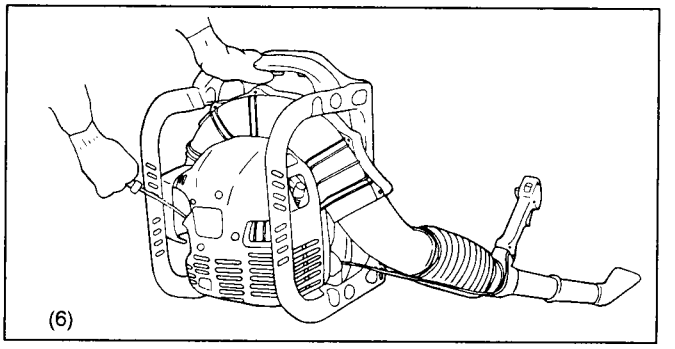
Start the blower only in accordance with the instructions.

Do not use any other methods for starting the engine (6)!

- Use the blower and the tools supplied only for applications specified.
- **Start the blower engine only after the entire blawer has been assembly is done. Operation of the blowers is permitted only after all the appropriate accessories are attached!**
- To reduce the risk of injuries associated with contacting rotating parts, stop the engine before installing or removing attachments. Do not aperate without guard(s) in place.
- The engine is to be stopped immediately if there are any engine problems.
- When working with the blower, always wrap your fingers tightly around the handle, keeping the control handle cradled between your thumb and forefinger. Keep your hand in this position to have your machine under control at all times. Make sure your control handle is in good condition and free of moisture, pitch, oil or grease.
  Always ensure a safe, well-balanced footing.
- Operate the blower in such a manner as to avoid inhalation of the exhaust gases. Never run the engine in enclosed rooms (risk of suffocation and gas poisoning). Carbon monoxide is an odorless gas. Always ensure there is adequate ventilation.
- Stop the engine when resting and when leaving the blower unattended. Place it in a safe location to prevent danger to others, setting fire to combustible materials, or damage to the machine.
- Never lay down the hot blower onto dry grass or onto any combustible materials.
- Never operate the engine with a faulty exhaust muffler.
- Stop the engine during transport (7).
- Put the blower in upright position and fix it during car or truck transportation to avoid.
- When transporting the blower, ensure that the fuel tank is completely empty to avoid fuel leakage.
- Do not sit on the blower or throw it around.

REFUELLING

- To reduce the risk of fire and burn injury; handle fuel with care. It is highly flammable.
- Stop the engine during refuelling (7), Keep well away from open flame (8) and do not smoke.
- Avoid skin contact with petroleum products. Do not inhale fuel vapor. Always wear protective gloves during refuelling Change and clean protective clothing at regular intervals.
- Take care not to spill either fuel or oil, Always wipe unit dry before starting engine. Allow wet cloths to dry before disposing in proper, covered container to prevent spontaneous combustion.
- Avoid any fuel contact with your clothing. Change your clothing immediately if fuel has been spilled on it (danger hazard).
- Inspect the fuel cap at regular intervals making sure that it stays securely fastened.
- Carefully tighten the locking screw of the fuel tank. Move at least 10ft (3 meters) away from the refuelling point before starting engine (9).
- Never refuel in closed rooms. Fuel vapors accumulate at ground level (risk of explosions).
- Only transport and store fuel in approved containers. Make sure stored fuel is not accessible to children.
- Do not attempt to refuel a hot or a running engine.
- When mixing gasoline with two-stroke engine oil, use only gasoline which contains no ethanol or methanol (types of alcohol).
  This will help to prevent damage to fuel lines and other engine parts.
- Make sure the unit is properly assembled and in good operating condition.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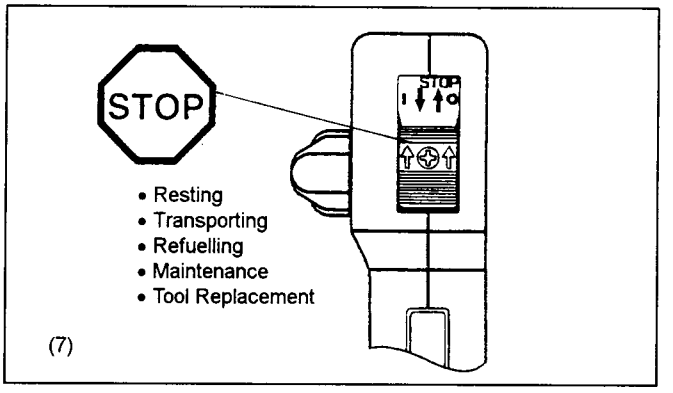

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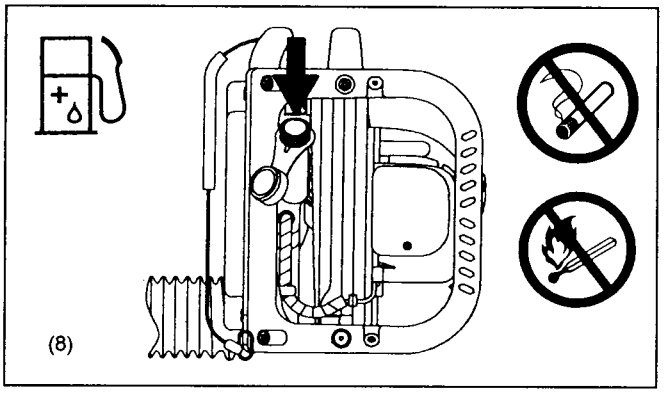
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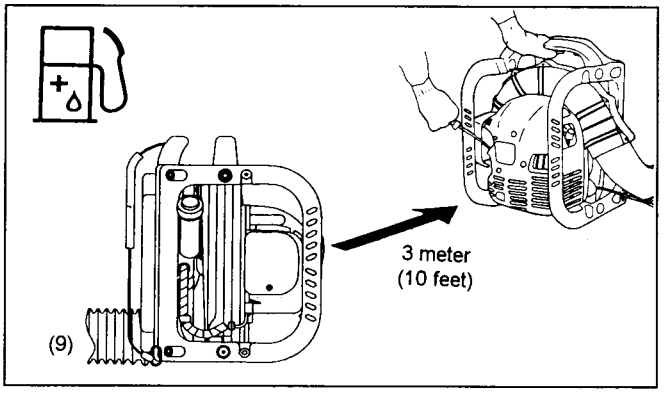

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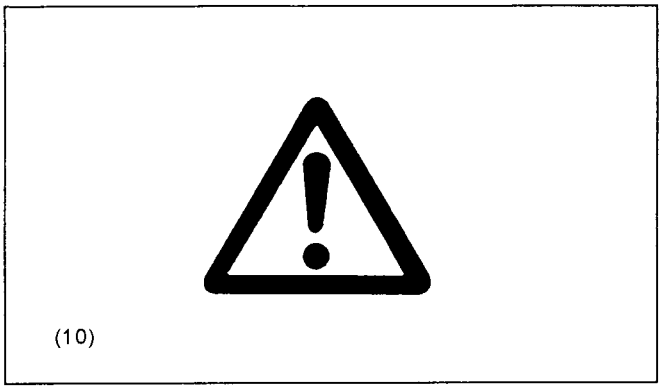
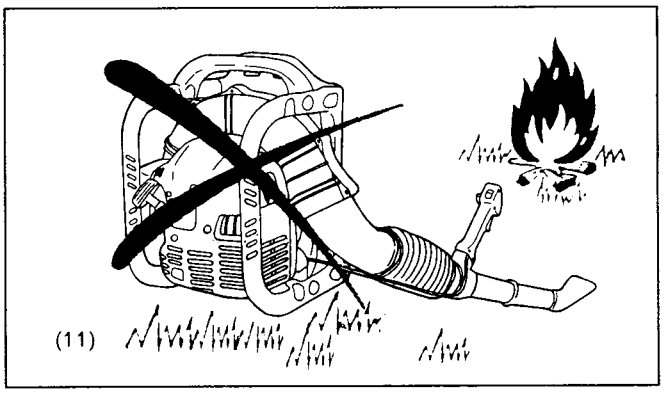
METHOD OF OPERATION



(10)

- Use the blower only in good light and visibility. During cold seasons beware of slippery or wet areas, ice and snow (risk of slipping). Always ensure a safe footing.
- Never work on unstable surfaces or steep terrain.
- Do not allow bystanders in work area, much less direct the air flow or blow debris toward another person or pet.
- Never insert any foreign object into the air intake of the machine or into the nozzle of the blower. It will damage the fan wheel and may cause serious injury to the operator or bystanders as a result of the object or broken parts being thrown out at high speed.
- Pay attention to the direction of the wind, i.e., do not work against the wind.
- To reduce the risk of stumbling and loss of control, do not walk backward while operating the machine.
- Always stop the engine before cleaning or servicing the unit or replacing parts.
- Operate power equipment only at reasonable hours not early in the morning or late at night when people might be disturbed. Comply with times listed in local ordinances. Usual recommendations are 9:00 a.m. to 5:00 p.m. Monday through Saturday.
- Use only one piece of power equipment at a time, when possible.
- Operate power blowers at the lowest possible throttle speed to do the job.
- Check your equipment before operation, especially the muffler, air intakes and air filters.
- Use rakes and brooms to loosen debris before blowing.
- In dusty conditions, slightly dampen surface or mister attachment when water is available.
- Conserve water by using power blowers instead of hoses for many lawn and garden applications, including areas such as gutters, screens, patios, grills, porches and gardens.
- Watch out for children, pets, open windows or freshly washed cars, and blow debris safely away.
- Use full blower nozzle extension so the air stream can work close to the ground.
- After using blowers and other equipment, CLEAN UP! Dispose of debris in trash receptacles.

MAINTENANCE INSTRUCTIONS



(11)

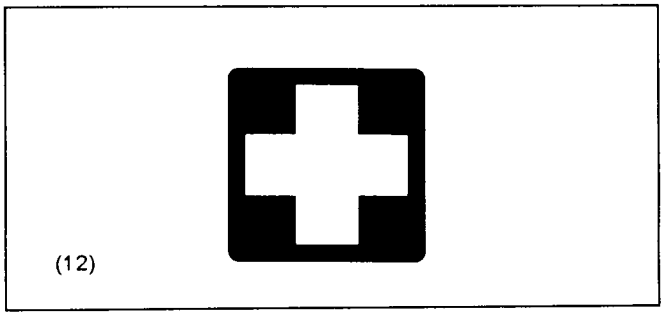
- Be kind to the environment. Operate the blower with as little noise and pollution as possible. In particular check the correct adjustment of the carburetor.
- Clean the blower at regular intervals and check that all screws and nuts are securely tightened.
- Never service or store the blower in the vicinity of open flames, sparks, etc. (11).
- Always store the blower in a well-ventilated locked room and with an emptied fuel tank.

Observe and follow all relevant accident prevention instructions issued by the trade associations safety boad and by insurance companies. Do not perform any modifications to the blower as this will risk your safety.

The performance of maintenance or repair work by the user is limited to those activities as described in this instruction manual. All other work is to be done by MAKITA autborized or factory service centers.
Use only genuine spare parts and accessories supplied by MAKITA.
Use of non-approved accessories and tools means increased risk of accidents and injuries. MAKITA will not accept any liability for accidents or damage caused by the use of any non-approved accessories.

FIRST AID

In case of accident make sure that a well-stocked first-aid kit, is available in the vicinity of the cutting operations.
Immediately replace any item taken from the first aid kit.



(12)

When asking for help, please give the following information:

- Place of accident
- What happened
- Number of injured persons
- Extent of injuries
- Your name

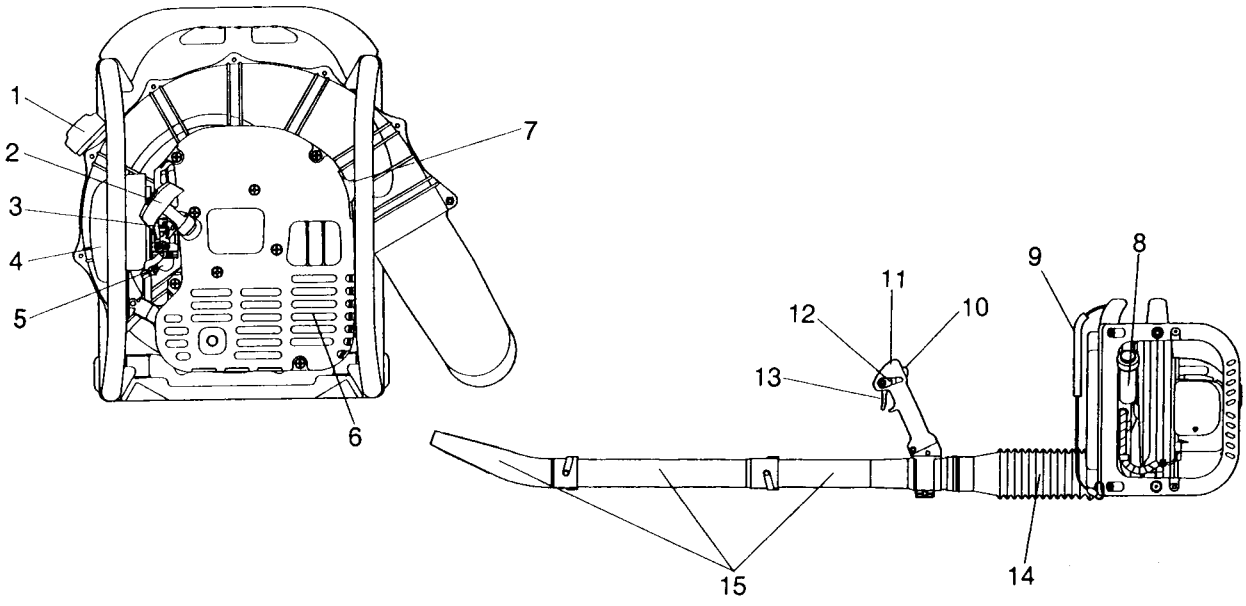
PACKAGING

The MAKITA blower is delivered in a protective cardboard box to prevent shipping damage. Cardboard is a basic raw material and is therefore consequently reusable or suitable for recycling (waste paper recycling).

Specification

Model		RBL500
Dimensions: length x width x height (without blower pipes)	mm	310 x 460 x 435 (12-7/32" x 18-1/8" x 17-5/32")
Mass (with blower pipes)	kg	8.7 (19.3 lbs)
Engine displacement	cm^3	48.6
Bore	mm	44
Stroke	mm	32
Volume (fuel tank)	cm^3	1800
Mixture ratio (Fuel: MAKITA 2-stroke oil)		50 : 1
Carburetor (Diaphragm-carburetor)	type	ZAMA C1M
Maximum engine speed	rpm	5,800
Idling speed	rpm	2,600
Ignition system	type	Solid state ignition
Spark plug	type	NGK-BPM7A
Electrode gap	mm	0.6 - 0.7

DESIGNATION OF PARTS



	DESIGNATION OF PARTS		DESIGNATION OF PARTS		DESIGNATION OF PARTS
1	Fuel filler cap	7	Spark Plug	13	Throttle Lever
2	Starter Knob	8	Fuel Tank	14	Flexible Pipe
3	Choke Lever	9	Shoulder Strap	15	Blower Pipes
4	Air Cleaner	10	Stop Switch		
5	Primer Pump	11	Control Handle		
6	Muffler	12	Setting Lever		

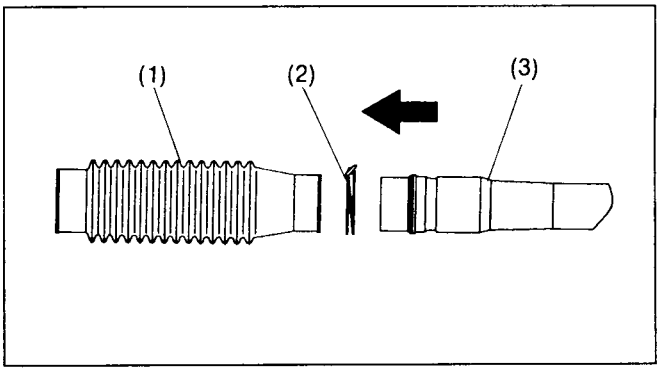
ASSEMBLY INSTRUCTIONS

ASSEMBLY OF BLOWER PIPES

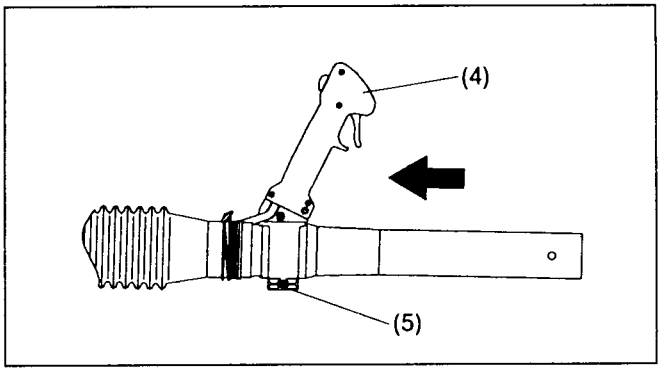
CAUTION: Before performing any work on the blower, always stop the engine and pull the spark plug connectors off the spark plug.
Always wear protective gloves!

CAUTION: Start the blower only after having assembled it completely.

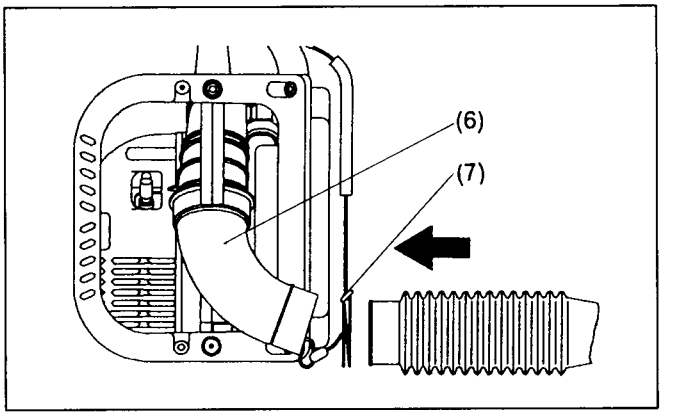
1. Assemble straight pipe with swivel (3) into flexible pipe (1) and tighten hose band ϕ 78 (2).



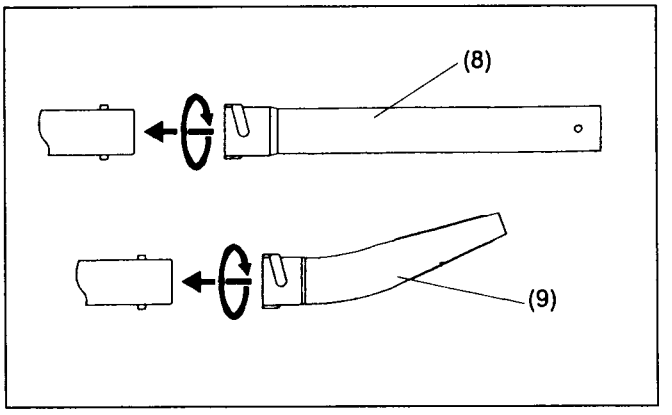
2. Install control handle (4) onto straight pipe with swivel and tighten the clamp screw (5).



3. Assemble flexible pipe to elbow (6) on blower and tighten hose band ϕ 91 (7).



4. Assemble straight pipe (8) to straight pipe with swivel, turning straight pipe clockwise to lock it into place. Assemble end pipe (9) in the same way.



5. Make sure all clamps are tight.

FUELS/REFUELLING

Handling petroleum products

Utmost care is required when handling fuel. Fuel may contain substances similar to solvents. Refuel either in a well ventilated area or outdoors. Do not inhale fuel vapors, avoid any contact of fuel or oil with your skin.
Mineral oil, fuel, etc., product degrease your skin. If skin comes in contact with these substances repeatedly or for an extended period of time, various skin diseases may result. In addition, allergic reactions are known to occur. Eyes can be irritated by contact with oil, fuel etc.
If oil, fuel, etc., comes into your eyes, immediately wash them with clear water. If your eyes are still irritated, see a doctor immediately!

Observe the Salely Instructions on page 4

FUEL AND OIL MIXTURE

This product is powered by two-stroke engine and requires pre-mixing gasoline and two-stroke oil.
Inspect the fuel tank and fill with clean, fresh fuel and oil of the proper mixture to assure the longer life of the tool. Use the following mixed gas.

Gasoline: Makita genuine two-stroke engine oil = 50 : 1 or
Gasoline: Other manufacturer's two-stroke engine oil = 25 : 1 recommended

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FOR CALIFORNIA REGULATION:
THIS EQUIPMENT IS CERTIFIED TO OPERATE ON GASOLINE + TWO-STROKE ENGINE OIL

WHEN MIXING GASOINE WITH TWO-STROKE ENGINE OIL, USE ONLY GASOLINE WHICH CONTAINS NO ETHANOL OR METHANOL(TYPES OF ALCOHOL). THIS WILL HELP TO AVOID POSSIBLE DAMAGE TO ENGINE FUEL LINES AND OTHER ENGINE PARTS. MIX FUEL IN CONTAINER APPROVED FOR GASOLINE. DO NOT MIX GASOLINE AND OIL DIRECTLY IN THE FUEL TANK.

IMPORTANT:
Failure to follow proper fuel mix instructions may cause damage to the engine.

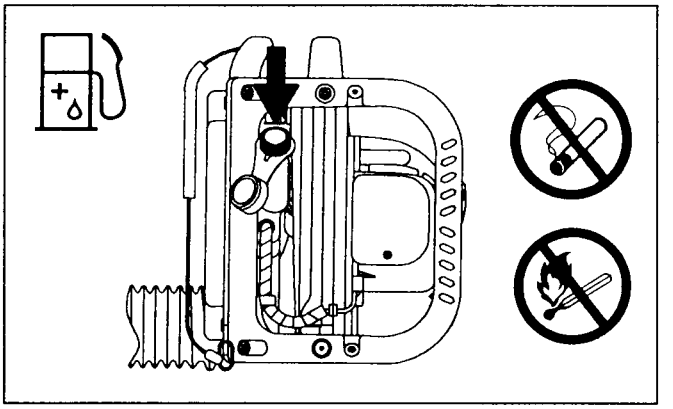
CAUTION:

- **When preparing fuel mixture, mix only the amount needed for the job you are to do. Do not use fuel mixture that has been stored longer than two months. Fuel mixture stored longer than this will cause hard starting and poor performance. If fuel mix has been stored longer than this time, it should be removed and filled with a fresh mixture.**
- **Never fill the fuel tank to the very top.**
- **Never add fuel to the tank in a closed unventilated area.**
- **Do not add fuel to this unit close to an open fire or sparks.**
- **Be sure to wipe off spilled fuel before attempting to start the engine.**
- **Do not attempt to refuel a hot engine.**

Refuelling

Always stop the engine and allow it to cool before refuelling.

- Thoroughly clean the area around the fuel filler cap to prevent dirt from getting into the fuel tank.
- Unscrew the fuel filler cap and fill the tank with fuel.
- Tightly screw on the fuel filler cap.
- Clean the fuel filler cap and tank after refuelling! Wipe up any fuel spillage.



Storage of Fuel

Fuel cannot be stored for an unlimited period of time. Purchase only the quantity required for a 4 week operating period. Only use approved fuel storage containers.

WARNING!
Gasoline is an extremely flammable fuel. Use extreme caution when handling gasoline or fuel mix. Do not smoke or bring any fire or flame near the fuel.

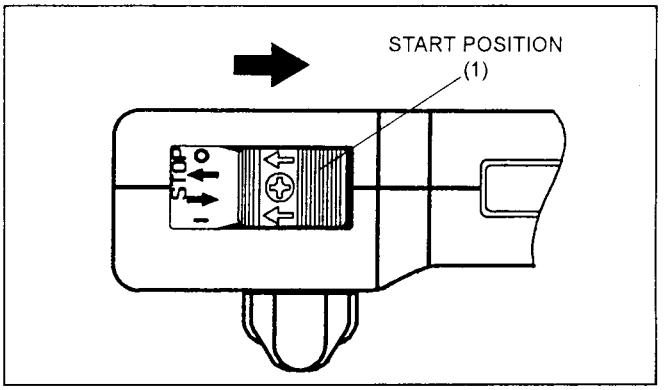
BLOWER OPERATION

Observe all applicable accident prevention regulations!

Starting

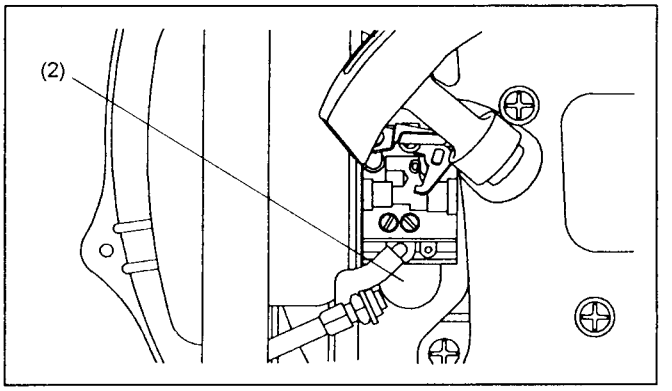
Select bare ground for fueling and move at least 10 feet (3m) from fueling spot before starting the engine. Place the blower on an open area of ground taking care that the air flow does not blow objects. Make sure that this area is clear of combustible materials.

1. When the engine is cold, or it has been stopped for more than 5 minutes or fuel has been added to the engine.
   1) Push the STOP switch (1) to "I" position.
   2) Give a gentle push on the primer pump repeatedly (7-10 times) until fuel comes into the primer pump (2).
   3) Close the choke lever fully by moving it to the position (3).
   4) Place the blower on the ground. Hold the handle and give several strong pulls to the starter knob using the other hand.
      The choke lever return t to the position automatically, when squeeze the throttle lever.



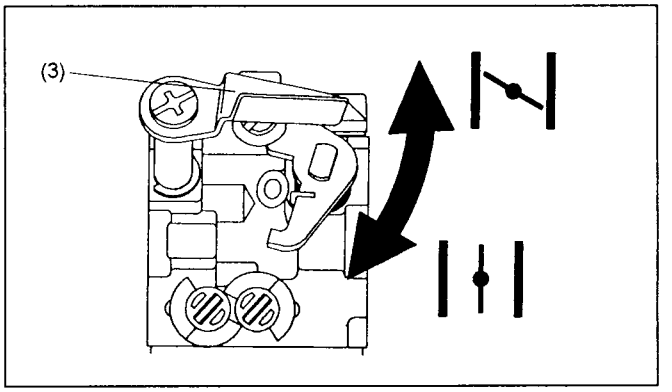
NOTE: The throttle lever is unlocked when squeezing it slightly.
Always start on the ground, the engine should never be started as carried on the back.

2. Restarting immediately after the engine has stopped:
   1) Push the STOP switch (1) to "I" position.
   2) Give a gentle push on the primer pump repeatedly (7-10 times) until fuel comes into the primer pump (2).
   3) Open the choke lever fully by moving it to the position (3).
   4) Leave the throttle lever fully released.
   5) Place the blower on the ground. Hold the handle and give several strong pulls to the starter knob using the other hand.



Stopping

– Release the throttle lever fully, and when the engine rpm has lowered, push the stop switch to "O, STOP" position. Engine will stop.

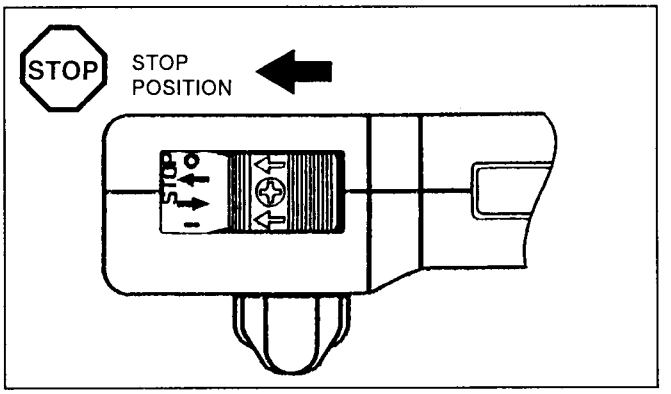


ADJUSTING CARBURETOR

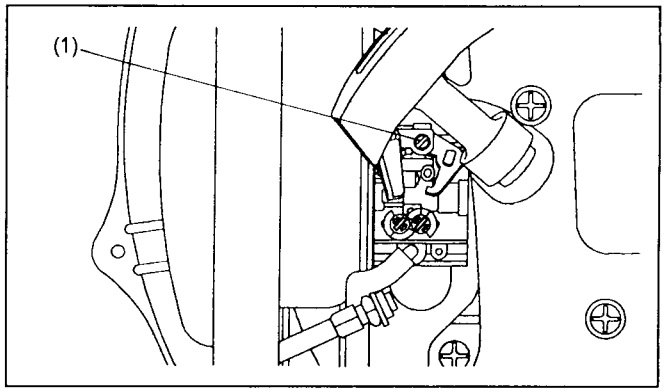
NOTE: Do not adjust carburetor unless necessary. If you have trouble with carburetor, see your dealer. Always adjust carburetor with pipes assembled to the blower.

NOTE: The needle screws have a sharp point. To avoid carburetor damage, do not use excessive force when seating needle in body.

– The low (L) speed adjustment screw controls the volume of fuel/oil mixture at low engine speed. It also controls the supplementary fuel required to obtain smooth progression from idling to high speed.
– The high (H) speed adjustment screw controls the volume of fuel/oil mixture at full throttle



If you use your machine at high altitudes (mountains) or at sea level, it may be necessary to change the carburetor setting in the range of the adjustment. Carry out the correction at the two adjusting screws (L and H) as follows: Turn clockwise (leaner) for high altitude operation or counterclockwise (richer) for operation at sea level.



IDLE ADJUSTMENT

- The idle speed adjustment screw controls the throttle opening at idle position.
- If engine stops while idling, turn the idle adjusting screw (1) clockwise until the engine runs smoothly.

MAINTENANCE

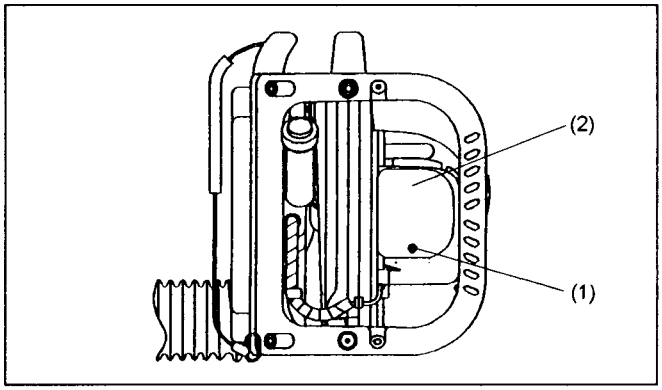
COUTION: Before doing any work on the blower always stop the engine and pull the plug caps off the spark plugs (see "Checking the spark plugs" page 11).
Always wear protective gloves!

To ensure a long service life and to avoid any damage to the equipment, the following servicing operations should be performed at regular intervals.

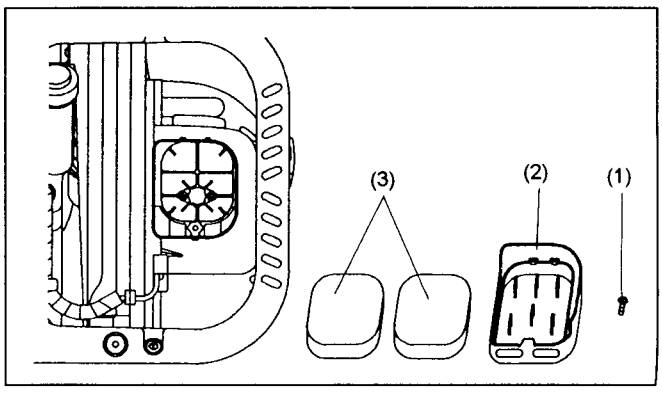
DAILY CHECKUP AND MAINTENANCE

- Before operation, check the machine for loose screws or missing parts. Every 8 hours (Daily).
- Before operation, always check for clogging of the cooling air passage and the cylinder fins.
  Clean them if necessary. Every 8 hours (Daily)
- Perform the following maintenance daily after use:
  - Clean the blower externally and inspect for damage.
  - Clean the air filter. When working under extremely dusty conditions, clean the filter and blow out the cooling air passage and cylinder fins several times a day.
- Check for proper functioning of the stop switch, the throttle lever, and the setting lever.

CLEANING OF AIR CLEANER Every 8 hours (Daily)



- Unscrew the air cleaner cover mounting screw (1).
- Remove the air cleaner cover (2).
- Push the choke lever to |◣| position to prevent dirt particles from entering the carburetor.
- Take out the sponge element (3), wash it in lukewarm water and dry it completely.
- After cleaning, put back the sponge element and put back the air cleaner cover and tighten the screw to secure.

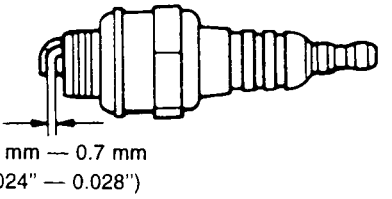


NOTE: If there is excessive dust or dirt adhering to the air cleaner, clean it every day. A clogged air cleaner may make it difficult or impossible to start the engine, or increase the engine rotational speed.

CHECKING THE SPARK PLUGS Every 8 hours(Daily)

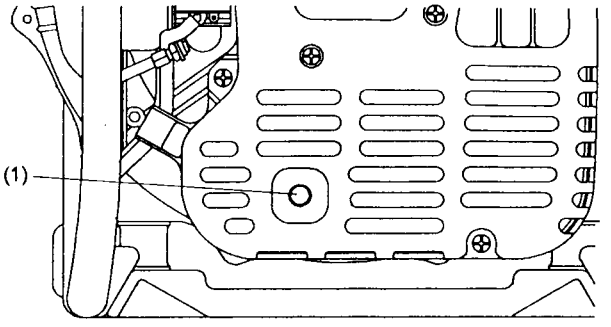
- Use only the supplied socket wrench to remove or install the spark plug. This engine uses NGK-BPM7A
- The gap between the two electrodes of the spark plug should be 0.6-0.7 mm (0.024" - 0.028"). If the gap is too wide or too narrow, adjust it. If the spark plug is clogged with carbon or fouled, clean it thoroughly or replace it. Use an exact replacement.

CAUTION: Never touch the spark plug connector while engine is running (danger of high voltage electric shock).



CLEANING OF MUFFLER EXHAUST PORT Every 50 hours (monthly)

- Check muffler exhaust port (1) regularly.
- If it is clogged with carbon deposits, carefully scrape the deposits out with a suitable tool.



Check of fuel filter. If clogged, replace with new one : Every 50 hours
Replace fuel lines : Every 200 hours (Yearly)
Overhaul engine : Every 200 hours (Yearly)
Replace packings and gaskets with new ones : Every time engine is reassembled.
To maintain product SAFETY and RELIABLITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized or Factory Service Center, always using Makita replacement parts.

STORAGE

- When keeping the machine in storage for a long time, drain fuel from the fuel tank and carburetor, as follows : Drain all fuel from the fuel tank into container approved for gasoline. Give a gentle push on the primer pump repeatedly until all fuel is expelled out of the primer pump.
- Remove the spark plugs and add a few drops of oil into spark plug hole. Then, pull the starter gently. Confirm that oil film covers the engine inside and tighten the spark plug.
- Clear dirt or dust from outside of engine, wipe them with an oil-immersed cloth and keep the machine locked in a dry, well-ventilated place that is inaccessible to children. Keep away from corrosive agents such as garden chemicals and de-icing salts.
- Do not store in a closed area where fuel vapors can reach an open flame from hot water heaters, furnaces etc.
- Abide by all Federal and local regulations for the safe storage and handling of gasoline.

California Emission Control Warranty Statement

[This warranty does not apply in any other state.]

YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board and Makita U.S.A., Inc. are pleased to explain the emission control warranty on your 1995 and later utility and/or lawn and garden equipment engine. In California, new utility and lawn and garden equipment engine must be designed, built and equipped to meet the State's stringent anti-smog standards. Makita U.S.A., Inc. must warrant the emission control system on your utility and/or lawn dand garden equipment engine for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your utility and/or lawn and garden equipment engine.

Your emission control system includes parts such as the carburetor or fuel injection systems, the ignition system and the catalytic converter. Also included are the hoses and connectors and other emission-related assemblies.

Where a warrantable condition exists, Makita U.S.A., Inc. will repair your utility and/or lawn and garden equipment at no cost to you including diagnosis, parts and labor.

MANUFACTURER'S WARRANTY COVERAGE:

The 1995 and later utility and/or lawn and garden equipment engines are warranted for two years. If any emission-related part on your engine is defective, the part will be repaired or replaced by Makita U.S.A., Inc.

OWNER'S WARRANTY RESPONSIBILITIES:

As the utility and lawn and garden equipment engine owner, you are responsible for the performance of the required maintenance listed in your owner's manual. Makita U.S.A., Inc. recommends that you retain all receipts covering maintenance on your utility and/or lawn and garden equipment engine, but Makita U.S.A., Inc. cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the utility and/or lawn and garden equipment engine owner, your should be aware, however, that Makita U.S.A., Inc. may deny you warranty coverage if your utility and/or lawn and garden equipment engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

Your are responsible for presenting your utility and/or lawn and garden equipment engine to a Makita U.S.A., Inc. service center as a problem exists. The warranty repairs should be completed in a reasonable time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should contact a Makita Factory Service Center Manager nearest you. A list of the Factory Service Center locations and phone numbers is provided on page 15 for your convenience.

LIMITED WARRANTY

- California Only -

Makita U.S.A., Inc. a distributor of utility and lawn and garden equipment in the U.S., warrants to the owner of 1995 and later utility and/or lawn and garden equipment engines that the engine (1) has been designed, built, and equipped at the time of manufacture so as to conform with the applicable regulation of the California Air Resources Board, and (2) is free from defects in materials and workmanship which may cause it to fail to conform with those regulations as applicable according to the terms and conditions stated below.

WARRANTY PERIOD

The warranty period begins on the date which the utility and/or lawn and garden equipment engine is delivered to the original retail purchaser and ends two years after that date. During this two year period Maikita U.S.A., Inc. warrants to the original retail purchaser and each subsequent purchaser that the engine is free from defect in material and workmanship that can cause the failure of a warranted emission-related part.

WHAT IS COVERED UNDER THIS WARRANTY

Repair and/or replacement of any warranted emission-related part will be performed at no charge provided the work is performed at an authorized warranty station. There will also be no charge for any diagnostic labor performed at an authorized warranty station which leads to the determination that a warranted emission-related part is defective.

Any warranted part which is not scheduled for replacement as required maintenance, or which is scheduled only for regular inspection to the effect of "repair or replace as necessary" shall be warranted for the warranty period. Any warranted part which is scheduled for replacement as required maintenance shall be warranted for the period of time up to the first scheduled replacement of the part. This warranty shall apply only towards the repair, replacement, and/or adjustment of the component parts listed below.

EMISSION-RELATED PARTS COVERED UNDER THIS WARRANTY

1. Fuel Metering Systems
   - (a) Carburetor and its internal parts
   - (b) Air cleaner plate
   - (c) Air cleaner case
   - (d) Air cleaner element
   - (e) Fuel filter
   - (f) Throttle stopper

2. Ignition Systems
   - (a) Spark Plug
   - (b) Flywheel Magneto
   - (c) Ignition Coil

3. Other Miscellaneous Items Used in Above Systems
   - (a) Fuel Hoses
   - (b) Sealing Gaskets

If it is determined by an authorized warranty station that other engine components have been damaged due to the failure of a warranted emission-related part during the warranty period, Makita U.S.A., Inc. will repair and/or replace the necessary components.

WHAT IS NOT COVERED UNDER THIS WARRANTY

This warranty does not cover any emission-related part which malfunctions, fails, or is damaged due to alterations and/or modifications such as changing, adding, or removing parts.

When an engine is being serviced under warranty, Makita U.S.A., Inc. and any of its authorized dealers, distributors, or warranty stations shall not be liable for any loss of use of the engine, for any damage to goods, or loss of time or inconvenience.

This limited warranty also does not apply to any emission-related part which malfunctions, fails, or is damaged due to failure to follow the maintenance and operating instructions specified in the 1995 and later Owner's Manual including:

(a) Improper or inadequate maintenance of any warranted emission-related part.

(b) Improper installation, adjustment, or repair of the engine or any warranted emission-related part unless performed by a factory authorized warranty station.

(c) Failure to use recommended fuel as specified in the 1995 and later Owner's Manual.

(d) Repairs and diagnosis performed outside of an authorized warranty station.
Use of parts which are not authorized by Makita U.S.A., Inc.

MAINTENANCE SCHEDULE

The engine owner is responsible for having all scheduled inspection and maintenance services performed at the intervals specified in the 1995 and later owner's Manual and to retain records of these services as having been performed. These records should be transferred to each subsequent owner of the engine. Makita U.S.A., Inc., cannot deny a claim solely because there are no records of scheduled maintenance; however, a warranty claim may be denied if the failure to perform the scheduled maintenance and inspection resulted in the failure of a warranted emission-related part. As a minimum, the engine owner is responsible for the scheduled inspection and maintenance described below which are based on the procedures described in the Owner's Manual.

PROCEDURE	INTERVAL
(a) Check all nuts and bolts and tighten as necessary	Every 8 hours of use or daily.
(b) Check air passages and engine cylinder fins for clogging. Remove all obstructions as necessary.	Every 8 hours of use or daily.
(c) Clean the air cleaner.	Every 8 hours of use or daily.
(d) Check the spark plug. Clean and adjust it if necessary.	Every 8 hours of use or daily.
(e) Check the muffler exhaust port. Clean it if necessary.	Every 50 hours of use or monthly.
(f) Check the fuel filter. If clogged, replace it with a new filter.	Every 50 hours of use or monthly.
(g) Replace fuel lines.	Every 200 hours of use or annually.
(h) Overhaul the engine.	Every 200 hours of use or annually.
(i) Replace the packings and gaskets.	Every time the engine is assembled.

REPAIR AND REPLACEMENT OF EMISSION-RELATED PARTS

It is recommended that only engine replacement parts which have been authorized and approved by Makita U.S.A., Inc. should be used in the performance of any warranty maintenance or repairs of emission-related parts. These replacement parts will be provided at no charge if the part is still under warranty.

HOW TO FILE A WARRANTY CLAIM
AND WHERE TO GET WARRANTY SERVICES

Contact the nearest Makita Factory Service Center Manager to determine the appropriate location where the required warranty services are to be performed. A list of the Factory Service Center locations and phone numbers are provided below for your convenience.

14930 Northam Street
La Mirada, CA 90638-5753
(714) 522-8088

1421N. Clovis Ave., Ste. 112
Fresno, CA 93727
(209) 252-5166

392 S. Arrowhead Ave., #A-1
San Bernardino, CA 92408
(909) 885-1289

333 Littlefield Ave.
S. San Francisco, CA 94080
T. (415) 875-1002

16735 Saticoy St., Ste. 105
Van Nuys, CA 91406
(818) 782-2440

41850 Christy Street
Fremont, CA 94538-5107
(510) 657-9881

4554 Roseville Rd., Ste E
North Highlands, CA 95660
(916) 331-6211

7674 Clairemont Mesa Blvd.
San Diego, CA 92111
(619) 278-4471

1714 E McFadden Ave., Unit M
Santa Ana, CA 92705
(714) 667-5066

FEDERAL EMISSION COMPONENT DEFECT WARRANTY

EMISSION COMPONENT DEFECT WARRANTY COVERAGE - This emission warranty is applicable in all States, except the State of California

Makita U.S.A., Inc. warrant to the initial retail purchaser and each subsequent owner, that this utility equipment engine (herein "engine") was designed, built, and equipped to comform at the time of initial sale to all applicable regulations of the U.S. Environmental Protection Agency (EPA), and that the engine is free of defects in materials and workmanship which would cause this engine to fail to conform with EPA regulations during its warranty period.

For the components listed under PARTS COVERED, the dealer or service center authorized by MAKITA U.S.A., INC. will, at no cost to you, make the necessary diagnosis, repair, or replacement necessary to ensure that the engine complies with applicable U.S. EPA regulations.

EMISSION COMPONENT DEFECT WARRANTY PERIOD

The warranty period for this engine begins on the date of sale to the initial purchaser and continues for a period of 2 years.

PARTS COVERED

Listed below are the parts covered by the Emission Component Defect Warranty. Some of the parts listed below may require scheduled maintenance and are warranted up to the first scheduled replacement point for that part.

1) Fuel Metering System
   (i) Carburetor and internal parts
   (ii) Fuel filter, if applicable
   (iii) Throttle stopper, if applicable
   (iv) Choke System, if applicable
2) Air Induction System
   (i) Air cleaner plate
   (ii) Air cleaner case
   (iii) Air cleaner element
3) Ignition System
   (i) Spark plug
   (ii) Flywheel Magneto
   (iii) Ignition Coil
4) Miscellaneous Items Used in Above Systems
   (i) Fuel hoses. clamps and sealing gaskets

OBTAINING WARRANTY SERVICE

To obtain warranty service, take your engine to the nearest Authorized Makita U.S.A., INC., distributor or dealer. Bring your sales receipts indicating date of purchase for this engine. The dealer or service center authorized by MAKITA U.S.A., INC. will perform the necessary repairs or adjustments within a reasonable amount of time and furnish you with a copy of the repair order. All parts and accessories replaced under this warranty become the property of MAKITA U.S.A., INC.

WHAT IS NOT COVERED

* Conditions resulting from tampering, misuse, improper adjustment (unless they were made by the dealer or service center authorized by MAKITA U.S.A., INC. during a warranty repair), alteration, accident, failure to use the recommended fuel and oil, or not performing required maintenance services.

* The replacement parts used for required maintenance services.

* Consequential damages such as loss of time, inconvenience, loss of use of the engine of equipment, etd.

* Diagnosis and inspection charges that do not result in warranty-eligible service being performed.

* Any non-authorized replacement part, or malfunction of authorized parts due to use of non-authorized parts.

OWNER'S WARRANTY RESPONSIBILITIES

As the engine owner, you are responsible for the performance of the required maintenance listed in your owner's manual, MAKITA U.S.A., INC. recommends that you retain all receipts covering maintenance on your engine, but Makita U.S.A., INC. can not deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the engine owner, you should however be aware that the MAKITA U.S.A., INC. may deny your warranty coverage if your engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

You are responsible for presenting your engine to the nearest dealer or service center authorized by MAKITA U.S.A., INC. when a problem exists.

If you have any questions regarding your warranty rights and responsibilities, you should contact the Makita U.S.A., INC. Customer service department at 714-522-8088 for the information.

THINGS YOU SHOULD KNOW ABOUT THE EMISSION CONTROLL SYSTEM WARRANTY

MAINTENANCE AND REPAIRS

You are responsible for the proper use and maintenance of the engine. You should keep all receipts and maintenance records covering the performance of regular maintenance in the event questions arise. These receipts and maintenance records should be transferred to each subsequent owner of the engine. MAKITA U.S.A., INC. reserves the rights to deny warranty coverage if the engine has not been properly maintained. Warranty claims will not be denied, however, solely because of the lack of required maintenance or failure to keep maintenance records.

> MAINTENANCE, REPLACEMENT OR REPAIR OF EMISSION CONTROL DEVICES AND SYSTEMS MAY BE PERFORMED BY ANY REPAIR ESTABLISHMENT OR INDIVIDUAL; HOWEVER, WARRANTY REPAIRS MUST BE PERFORMED BY A DEALER OR SERVICE CENTER AUTHORIZED BY MAKITA U.S.A., INC.. THE USE OF PARTS THAT ARE NOT EQUIVALENT IN PERFORMANCE AND DURABILITY TO AUTHORIZED PARTS MAY IMPAIR THE EFFECTIVENESS OF THE EMISSION CONTROL SYSTEM AND MAY HAVE A BEARING ON THE OUTCOME OF WARRANTY CLAIM.

If other than the parts authorized by MAKITA U.S.A., INC. are used for maintenance replacements or for the repair of components affecting emission control, you should assure yourself that such parts are warranted by their manufacturer to be equivalent to the parts authorized by MAKITA U.S.A., INC. in their performance and durability.

HOW TO MAKE A CLAIM

All repairs qualifying under this limited warranty must be performed by a dealer or service center authorized by MAKITA U.S.A., INC.. In the event that any emission-related part is found to be defective during the warranty period, you shall notify MAKITA U.S.A., INC. at 714-522-8088 and you will be given the appropriate warranty service facilities where the warranty repair can be performed.

MEMO

WARNING: The Engine Exhaust from this product contains chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

Makita Corporation
3-11-8, Sumiyoshi-cho,
Anjo, Aichi 446, Japan

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