



Owner's Manual

Model Numbers:

**THB-2500, THB-2510,
TBL-4600, TBL-4610, TBL-505
BLOWERS**

P/N 12626

Date 08-10-01



TBL-4600



THB-2510

Supplier To The Outdoor Power Equipment Industry

ISM, Inc. • 1028 4th Street SW • Auburn, WA 98001 • Phone: (253) 333-1200 • Fax: (253) 333-1212

Before using this unit:

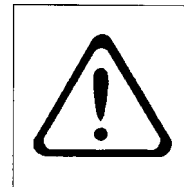
- Read the operator's manual carefully.
- Check that the blower is correctly assembled and adjusted.
- Start the unit and check the carburetor adjustment. See "Maintenance".

WARNING

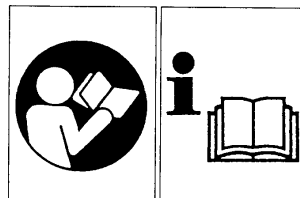
The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.



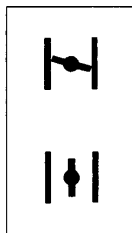
Always wear eye, head and ear protectors when using this unit.



Read, understand and follow all warnings and instructions in this manual and on the unit.



It is important that you read, fully understand and observe the following safety precautions and warnings. Careless or improper use of the unit may cause serious or fatal injury.



Explains choke position. Upper sign indicates choke closed and the lower fully open.



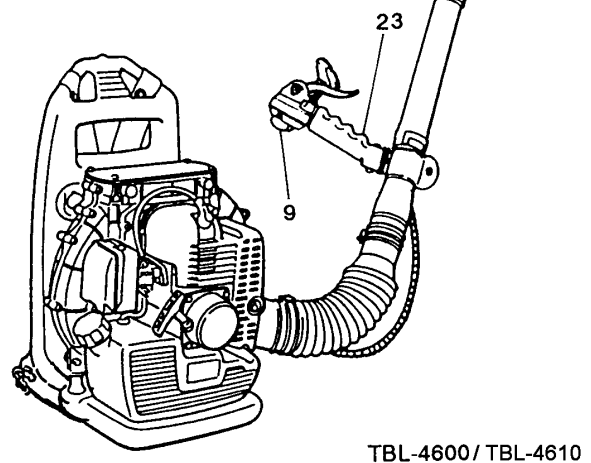
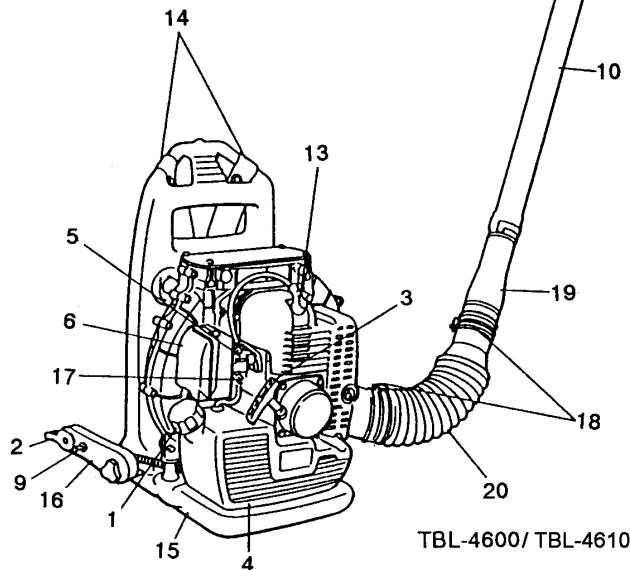
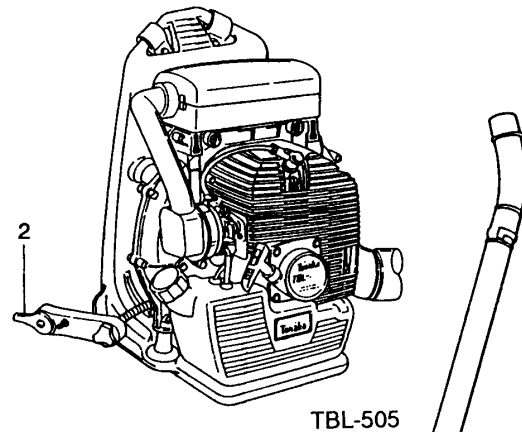
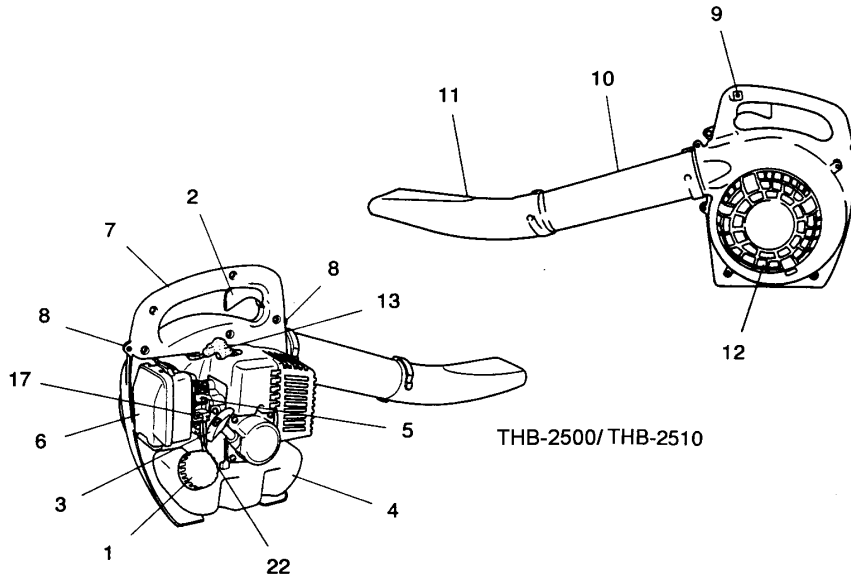
WARNING **DANGER**

Keep hands off from rotating fan. For vacuum, vacuum pipe and bag must be in place. For blower, dust cover must be securely installed.

1. What is what?

(En) Since this manual covers several models, there may be some difference between pictures and your unit. Use the instructions that apply to your unit.

1. Fuel cap
2. Throttle trigger
3. Starter handle
4. Fuel tank
5. Carburetor
6. Air cleaner
7. Handle
8. Suspension eyelet
9. Ignition switch
10. Straight pipe
11. Fan-headed pipe
12. Dust cover
13. Spark plug
14. Shoulder harness
15. Frame
16. Throttle arm
17. Chock knob
18. Wire clamp
19. Swivel pipe
20. Flexible pipe
21. Bent pipe
22. Priming bulb
23. Throttle grip



2. Warnings and safety instructions.

Operator Safety

- **IMPORTANT:** A dust filter mask should be worn during operation.
- Always wear a safety face shield or goggles. Always wear heavy, long pants, boots and gloves. Do not wear loose clothing, jewelry, short pants, sandals or go barefoot. Secure hair so it is above shoulder length.
- Do not operate that tool when you are tired, ill or under the influence of alcohol, drugs or medication.
- Never let a child or inexperienced person operate the machine.
- Wear hearing protection.
- Never start or run the engine inside a closed room or building. Breathing exhaust fumes can kill.
- Keep handles free of oil and fuel.
- Keep hands away from moving part or heated area.
- Do not grab or hold the unit by the blow pipe.
- When the unit is turned off, make sure the engine has stopped before the unit is set down.
- When operation is prolonged, take a break from time to time so that you may avoid possible whitefinger disease which is caused by vibration.

Tool Safety

- Inspect the entire tool before each use. Replace damaged parts. Check for fuel leaks and make sure all fasteners are in place and securely fastened.
- Replace parts that are cracked, chipped or damaged in any way before using the tool.
- Make sure the safety guard is properly attached.
- Keep others away when making carburetor adjustments.
- Use only accessories as recommended for this tool by the manufacturer.

WARNING!

Never modify the tool in any way. Do not use the tool for any job except that for which it is intended.

Fuel Safety

- Mix and pour fuel outdoors and where there are no sparks or flames.
- Use a container approved for fuel.
- Do not smoke or allow smoking near fuel or the tool or while using the tool.
- Wipe up all fuel spills before starting engine.
- Move at least 3 m (10 ft) away from fueling site before starting engine.
- Stop engine before removing fuel cap.
- Empty the fuel tank before storing the tool. It is recommended that the fuel be emptied after each use. If fuel is left in the tank, store so fuel will not leak.
- Store tool and fuel in area where fuel vapors cannot reach sparks or open flames from water heaters, electric motors or switches, furnaces, etc.

WARNING!

Antivibration systems do not guarantee that you will not sustain whitefinger disease or carpal tunnel syndrome. Therefore, continual and regular users should monitor closely the condition of their hands and fingers. If any of the above symptoms appear, seek medical advice immediately.

Blowing Safety

- 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.
- Never direct discharge of air toward bystanders nor allow anyone near the area of operation. Use care in directing discharge to avoid glass enclosures, automobiles, etc.
- Stay alert for uneven sidewalks, holes in terrain or other unstable condition when using the tool.
- Take all possible precautions when leaving the tool unattended such as stopping the engine.
- Never operate the tool without guards, blow pipes or other protective device in place. (if so equipped.)
- Keep others including children, animals, bystanders and helpers outside the 15 m (50ft) hazard zone. Stop the engine immediately if you are approached.
- Always keep the engine on the right side of your body. (Hand held blower only)
- Keep firm footing and balance. Do not over-reach.
- Keep all parts of your body away from the muffler.

Maintenance Safety

- Maintain the tool according to recommended procedures.
- Disconnect the spark plug before performing maintenance except for carburetor adjustments.
- Keep others away when making carburetor adjustments.
- Use only genuine replacement parts as recommended by the manufacturer.

Transport and storage

- Carry the tool by hand with the engine stopped and the muffler away from your body.
- Allow the engine to cool, empty the fuel tank, and secure the tool before storing or transporting in a vehicle.
- Empty the fuel tank before storing the tool. It is recommended that the fuel be emptied after each use. If fuel is left in the tank, store so fuel will not leak.
- Store tool out of the reach of children.
- Clean the unit carefully and store it in a dry place.
- Make sure engine switch is off when transporting or storing.

If situations occur which are not covered in this manual, take care and have good judgment. Contact your dealer if you need assistance.

Pay special attention to statements preceded by the following words:

WARNING!

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

CAUTION!

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

NOTE!

Helpful information for correct function and use.

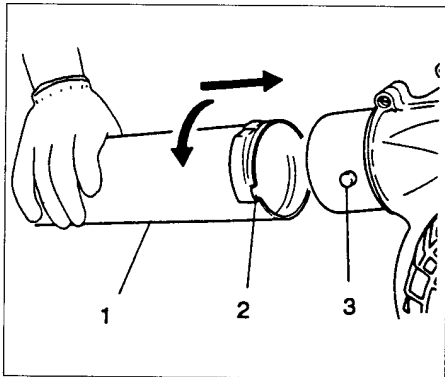


Fig. 1-1

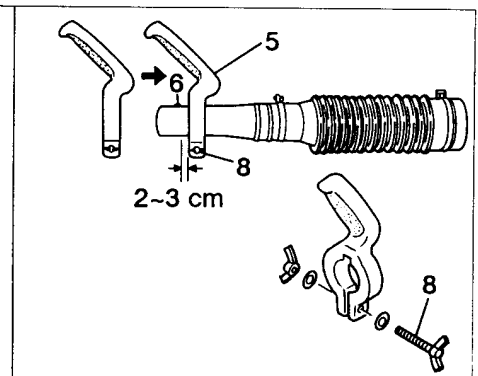
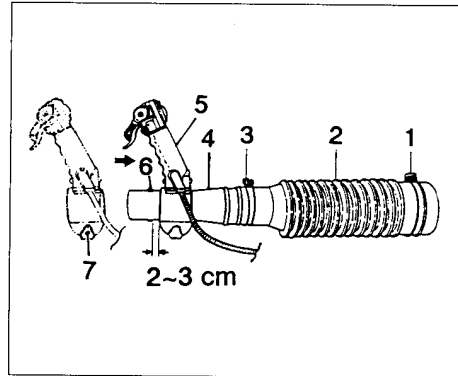


Fig. 1-1B

3. Assembly procedures.

Blow pipes to main body (Fig. 1-1)

Inspect the main body and accessories,

Connect straight pipe (1) and other pipe(s) securely. (See page 1)

Align groove (2) in straight pipe with projection (3) on blower housing (or another pipe) and slide the pipe onto the blower housing (or another pipe).

Rotate the pipe clockwise to lock it into place, then tighten the clamp band (if so equipped, THB-2510).

NOTE! (TBL-4600, optional)

- Connect flexible pipe (2) to main body with clamp (1).
Finger-tighten the clamp.
- Connect swivel pipe (4) to flexible pipe with clamp (3).
- Install throttle grip (5) to swivel pipe so that the grip locates 2-3 cm away from projection (6) on swivel pipe.
- Finally, if direction of bent pipe does not match the direction of throttle grip, loosen knob (7) or wing bolt (8) (enclosed in vinyl bag) and swivel the grip to your comfort. (Fig. 1 - 1 B)

NOTE! (TBL-4600/4610/505, optional)

- Use flexible pipe with wire clamps.
- Install the pipe handle on swivel pipe or on straight pipe. Decide location and direction to your comfort.

(Fig. 1-2)

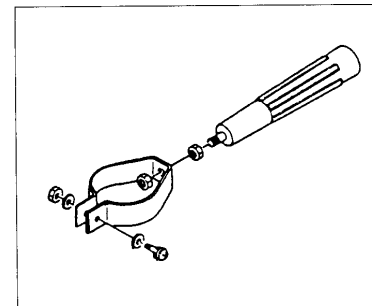


Fig. 1-2

NOTE! (THB-2510, optional)

Vacuum attachment is offered as an optional kit, which converts the hand-held blower into a vacuum cleaner. For installation, see THV-200 vacuum manual.

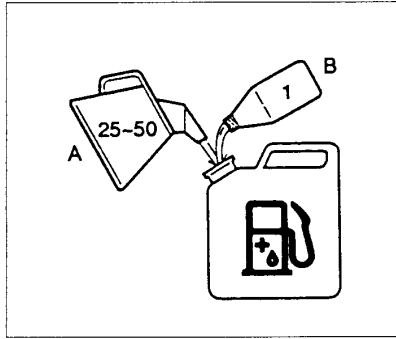


Fig. 2-1

4. Operating procedures.

WARNING!

This unit is equipped with a two-stroke engine. Always run the engine on fuel, which is mixed with oil. Provide good ventilation, when fueling or handling fuel.

Fuel

- Always use branded 89 octane unleaded gasoline.
- Use Tanaka two-cycle oil or a quality two-cycle oil at mixing ratio of 25-50:1 (Gasoline (A) : Oil (B)), only for the state of California at 50: 1.
- Never use multi-grade oil (10 W/30) or waste oil.
- Always mix fuel and oil in a separate clean container.

Always start by filling half the amount of fuel, which is to be used. Then add the whole amount of oil. Mix (shake) the fuel mixture.

Add the remaining amount of fuel.

Mix (shake) the fuel-mix thoroughly before filling the fuel tank.

Fueling

WARNING!

- * Always shut off the engine before refueling.
- * Slowly open the fuel tank, when filling up with fuel, so that possible over-pressure disappears. Tighten the fuel cap carefully, after fueling.
- * Always move the unit at least 3 m (10 ft.) from the fueling area before starting.

Before fueling, clean the tank cap area carefully, to ensure that no dirt falls into the tank.

Make sure that the fuel is well mixed by shaking the container, before fueling.

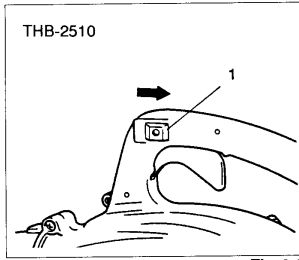


Fig. 2-2

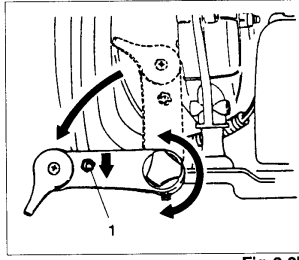


Fig. 2-2B

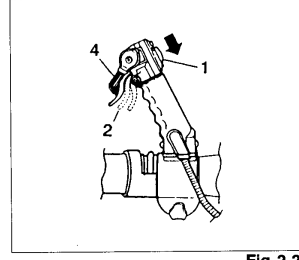


Fig. 2-2C

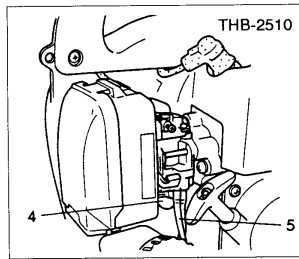


Fig. 2-3

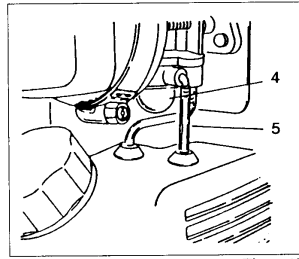
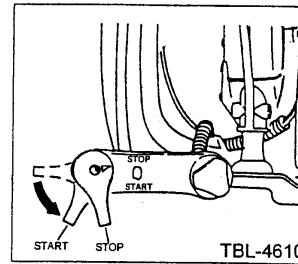


Fig. 2-3B



TBL-4610

Starting

CAUTION!

Do not start if the pipe is obstructed by the ground or any other object.

1. Set ignition switch (1) to ON position.
(Fig. 2-2, 2B, 2C)
- Push priming bulb (4) several times so that fuel flows through return pipe (5) (if so equipped) (Fig. 2-3, 3B)
- Move throttle lever to a half-open position (2) and lock it with lock lever (4) (if so equipped), when it is hard to start engine. (Fig. 2-2C)

Note! (TBL-4610)

Model TBL-4610 does not have an ignition switch.

To start or to stop the unit, ignore the switch operation from procedures in the manual. However, when starting the unit, move throttle lever to START position.

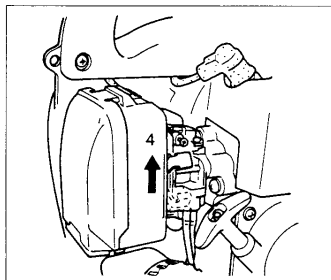


Fig. 2-4

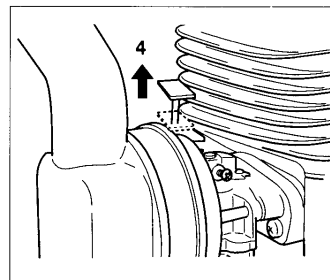


Fig. 2-4B

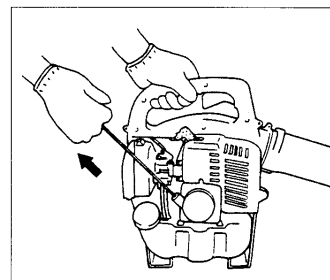


Fig. 2-5

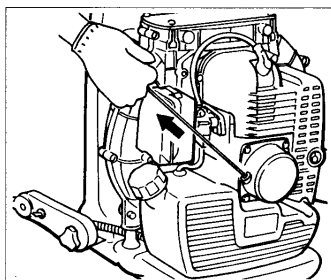


Fig. 2-5B

2. Set choke lever to CLOSED position (4). Fig. 2-4, 4B
3. Pull recoil starter briskly, taking care to keep the handle in your grasp and not allowing it to snap back. (Fig. 2-5, 5B)
4. When you hear the engine want to start, return choke lever to RUN position (open). Then pull recoil starter briskly again.

NOTE!

If engine does not start, repeat procedures from 2 to 4.

5. After starting engine, allow the engine about 2-3 minutes to warm up before subjecting it to any load.

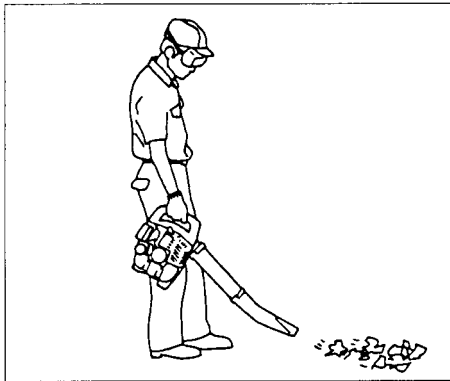


Fig. 2-6

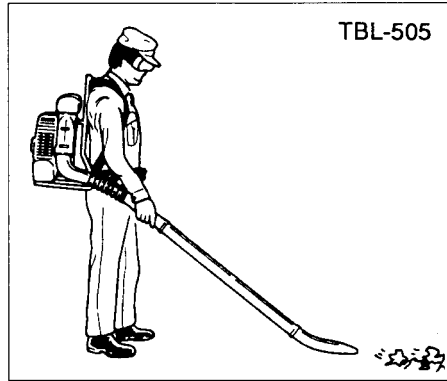


Fig. 2-6B

Operating blower (Fig. 2-6, 6B)

Adjust shoulder harness to fit your stature before operating unit. Back-pack unit in a correct way. (Fig. 2-6B)

⚠ WARNING!

Do not direct discharge of air toward people or pet.

1. The unit should be operated in a well ventilated area.
2. A low speed should be used to blow leaves and dry grass.
3. A medium speed should be used to clean wet leaves and grass.
4. A high speed should be used when moving gravel, dirt or other heavy materials.

CAUTION!

This blower has been designed and adjusted to be used with all blower pipes attached (See page 1). It must never be operated without the straight pipe, and blow head.

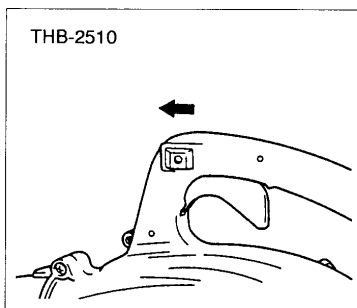


Fig. 2-7

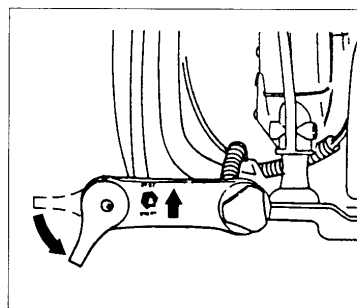


Fig. 2-7B

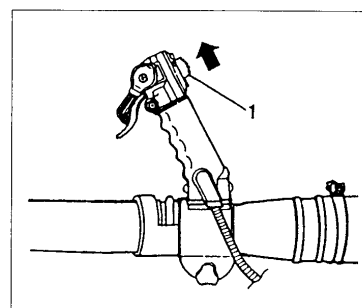


Fig. 2-7C

Stopping (Fig. 2-7, 7B, 7C)

Decrease engine speed, and push ignition switch to stop position.

Note! (TBL-4610)

Model TBL-4610 does not have an ignition switch.

To stop the unit, move throttle lever to START position and run for a few minutes, then move the lever further to STOP position.

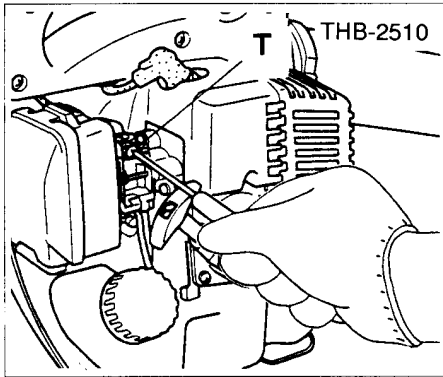


Fig. 3-1

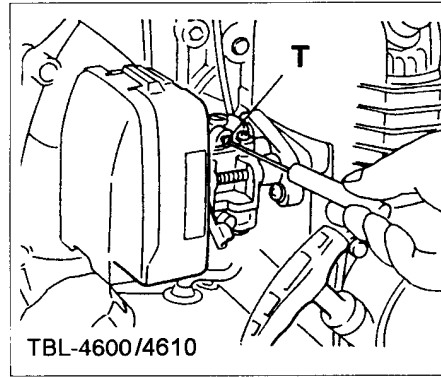


Fig. 3-1B

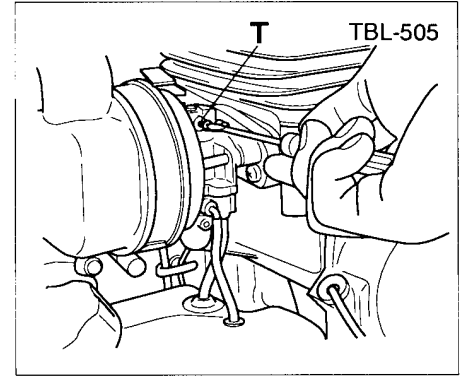


Fig. 3-1C

5. Maintenance

MAINTENANCE, REPLACEMENT, OR REPAIR OF THE EMISSION CONTROL DEVICES AND SYSTEM MAY BE PERFORMED BY ANY NONROAD ENGINE REPAIR ESTABLISHMENT OR INDIVIDUAL.

Carburetor adjustment (Fig. 3-1, 1 B, 1C)

In the carburetor, fuel is mixed with air. When the engine is test run at the factory, the carburetor is basically adjusted. A further adjustment may be required, according to climate and altitude. The carburetor has one adjustment possibility:

T = Idle speed adjustment screw.

Idle speed adjustment (T)

To adjust, turn IDLE Adjustment Screw (T) in (clockwise) to increase engine speed, out (counterclockwise) to decrease engine speed.

Standard Idle rpm is 2500-3000rpm.

CAUTION!

The above adjusting procedure must be followed when adjustment is MADE or DAMAGE to engine will occur because of the incorrect condition.

RECOMMENDATION:

CARBURETOR ADJUSTMENT NEEDS THE SKILL OF EXPERIENCED OR WELL TRAINED PEOPLE. IT IS RECOMMENDED TO TAKE THE UNIT TO YOUR NEAREST DEALER.

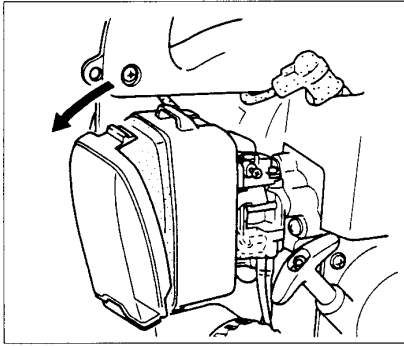


Fig. 3-2

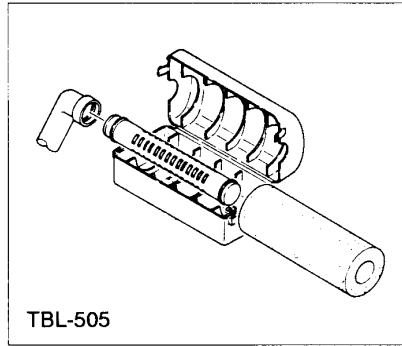


Fig. 3-2B

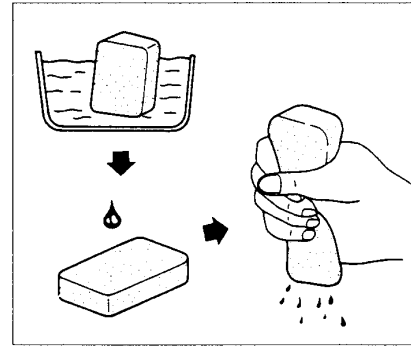


Fig. 3-2C

Air filter

The air filter must be cleaned from dust and dirt in order to avoid:

- Carburetor malfunctions.
- Starting problems.
- Engine power reduction.
- Unnecessary wear on the engine parts.
- Abnormal fuel consumption.

Remove the air cleaner cover by pushing and pulling back the tab on the top. (Fig. 3-2)

Cleaning the air filter

Clean the cleaner element every day or every 8 hours of operation. More frequent cleaning is recommended under very dusty conditions. Wash the element in liquid detergent and water. Squeeze the element to remove the dirt. Press the element in a dry rag until it is completely dry. Saturate the element in 2-cycle oil or the equivalent. Squeeze the element to distribute the oil completely and to remove any excess oil. Replace the element and install the cover. (Fig. 3-2B, 2C)

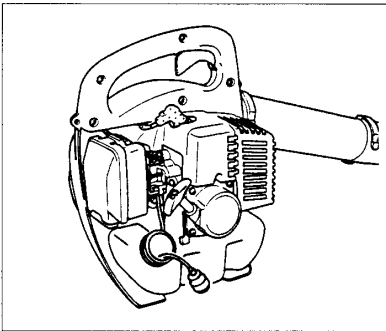


Fig. 3-3

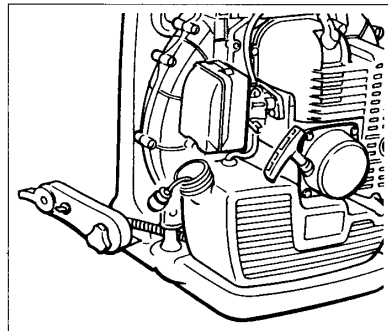


Fig. 3-3B

Fuel filter (Fig. 3-3, 3B)

Drain all fuel from fuel tank and pull fuel filter line from tank. Pull filter element out of holder assembly and rinse element in warm water with detergent.

Rinse thoroughly until all traces of detergent are eliminated. Squeeze, do not wring, away excess water and allow element to air dry.

NOTE!

If element is hard due to excessive dirt buildup, replace it.

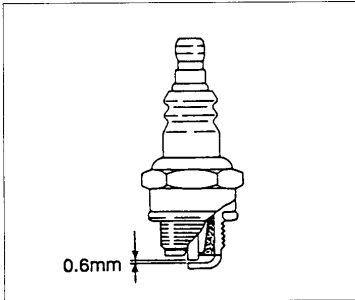


Fig. 3-4

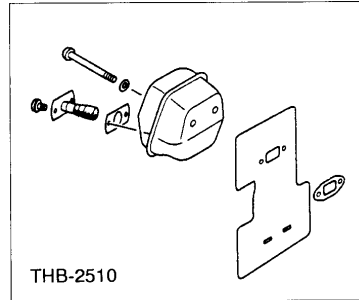


Fig. 3-5

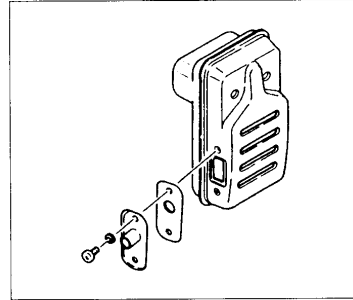


Fig. 3-5B

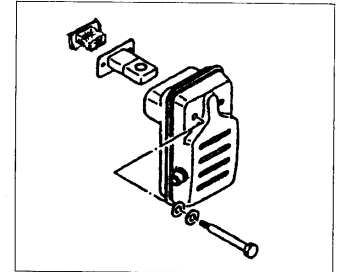


Fig. 3-5C

Spark plug (Fig. 3-4)

The spark plug condition is influenced by:

- An incorrect carburetor setting.
- Wrong fuel mixture (too much oil in the gasoline)
- A dirty air filter.
- Hard running conditions (such as cold weather).

These factors cause deposits on the spark plug electrodes, which may result in malfunction and starting difficulties. If the engine is low on power, difficult to start or runs poorly at idling speed, always check the spark plug first. If the spark plug is dirty, clean it and check the electrode gap. Readjust if necessary. The correct gap is 0.6 mm (.024"). The spark plug should be replaced after about 100 operation hours or earlier if the electrodes are badly eroded.

NOTE!

In some areas, local law requires using a resistor spark plug to suppress ignition signals. If this machine was originally equipped with resistor spark plug, use same type of spark plug for replacement.

Muffler (Fig. 3-5, 5B,5C)

Remove the muffler and clean out any excess carbon from the exhaust port or muffler inlet every 100 hours of operation.

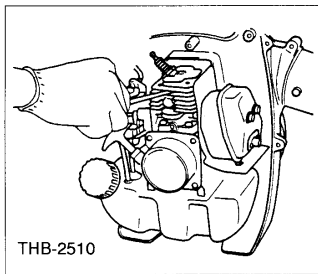


Fig. 3-6

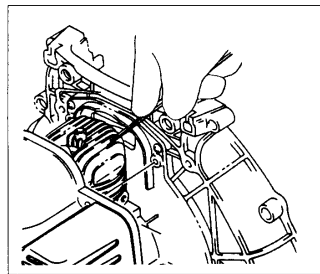


Fig. 3-6B

Cylinder (Engine cooling) (Fig. 3-6, 6B)

The engine is air cooled, and air must circulate freely around engine and over cooling fins on cylinder head to prevent overheating.

Every 100 Operating hours, or once a year (more often if conditions require), clean fins and external surfaces of engine of dust, dirt and oil deposits which can contribute to improper cooling.

NOTE!

Do not operate engine with engine shroud or muffler guard removed as this will cause overheating and engine damage.

Spark arrestor

If your unit comes with spark arrestor screen and yet your local regulation requires use of spark arrestor for prevention against a possible fire, please attach it to the muffler by removing muffler protector and other related parts.

(The spark arrestor meets the regulation of SAE J335-SEP90 and CSA CAN3-Z62. 1 -M77)

Maintenance schedule

Below you will find some general maintenance instructions. For further information please contact your service dealer.

Daily maintenance

- Clean the exterior of the unit.
- Check the dust cover for damage or cracks. Change the cover in case of impacts or cracks. (Hand held blower only)
- Check that nuts and screws are sufficiently tightened.

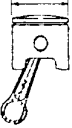

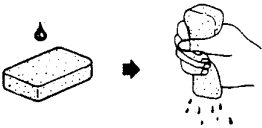



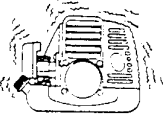
Weekly maintenance

- Check the starter, especially cord and return spring.
- Clean the exterior of the spark plug.
- Remove it and check the electrode gap. Adjust it to 0.6 mm (.024"), or change the spark plug.
- Clean the cooling fins on the cylinder and check that the air intake at the starter is not clogged.
- Clean the air filter.

Monthly maintenance

- Rinse the fuel tank with gasoline.
- Clean the exterior of the carburetor and the space around it.
- Clean the fan and the space around it.

6. Specifications

MODEL	THB-2510/2510V/THB-2500	TBL-4600 /4610	TBL-505
 Engine Size (ml)	24 (1.46 cu. in.)	44 (2.68 cu. in.)	←
 Spark Plug	NGK BPM-6A or BPMR-6A	NGK BM-7A or BMR-7A	←
 Air Cleaner	Oiled Foam Type	←	←
 Dry Weight (kg)	3.8 (8.4 lbs) / 4.2 (9.2 lbs)	9.0 (19.8 lbs)	10.0 (22.0 lbs)
 Fuel Capacity (l)	0.7 (23.6 fl.oz)	2 (67.6 fl.oz)	←
 Sound pressure level (dB(A))	By ANSI 69.0 By CEN 95.4 / 95.1	93.3	←
Sound power level (dB(A))	By ANSI By CEN 103.0 / 102.7	100	←
 Vibration level (m/s ²)	20.7/L:14.1 R: 6.7	1.1	←

ANSI : Measured at 50 feet away from unit.

CEN : Measured at operator's ear.

NOTE : Equivalent noise level/vibration levels are calculated as the time-weighted energy total for noise/vibration levels under various working conditions with the following time distribution : 1/2 idle, 1/2 full speed.

* All data subject to change without notice.

Declaration of conformity
Declaration de conformite
Dichiarazione di conformita
Konformitiitserkliirung
Declaraci6n de conformidad
Konformitetsdeklaration

We, Tanaka Kogyo Co., Ltd., 3-4-29 Tsudanuma, Narashino, Chiba, Japan
 Nous, soussign6s,
 Noi,
 Der unterzeichnete,
 Nosotros,
 Vi,

Declare under our sole responsibility that the product, power blower model THB-25 10, TBL-4600/4610/505
 D6clarons sous notre seule responsabilit6 que le produit en question, souffleuse mdcanique mod~le
 Dichiariamo sotto la nostra unica responsabilita che it prodotto, it motosoffiatore modello
 Erklarl unter, eigener Verantwortung, daB das Produkt, motorgeblase model]
 Declaramos dajo nuestra Onica responsabilidad que el producto, soplador mecdnico modelo
 Forklarar harmed pA eget ansvar att denna produkt, motordriven grds mattsluftare modell

to which this declaration relates is in conformity with the essential safety requirements of directives.

laquelle se rapporte la pr6sente d6claration est conforme aux directives concernant les conditions de s6curit6 essentielles.

at quale questa dichiarazione si riferisce, ~ conforme ai requisiti di sicurezza essenziali delle direttive.

for das these Erklarung gilt, den wesentlichen Sicherheitsanforderungen der Directive entspricht.

que corresponde a esta declaraci6n, satisface la (s) siguiente (s) exigencia (s) de seguridad esencial (es) de las directivas.

till vilken denna deklARATION tillhor, uppfyller samtliga vasentliga sakerhetskrav f6reskrivna i ber6rda direktiv.

89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, EMC89/336/EEC

The following standards have been taken into consideration

IS03864, (EN-292-2)

Les normes suivantes ont 6t6 prises en consid6ration. Sono stati presi in considerazione i seguenti standard. Die nachfolgenden Standards wurden in Betracht gezogen. Se han tenido en consideraci6n las siguientes normas. Vi har tagit hansyn till f6ljande standards.

Manufactured at: Chiba, Japan

Serial No. up from V001001

Fait A:

No. de s6rie A partir de

Luogo:

Num. di serie da

Erstellt in:

Scien-Nr. ab

Fabricado en:

No. de Serie de

Tillverkad av:

Serienr fr. o.m.

en adelante

Signature:

Signature:

Firma:


Seiji Tanaka

Unterschrift:

Fimado:

Signatur:

Position: Vice president

Function: Vice-pr6sident

Incarico: Vicepresidente

Titel: Stellvertretender Vorsitzender

Cargo: Vicepresidente

Befattning: Vice President

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