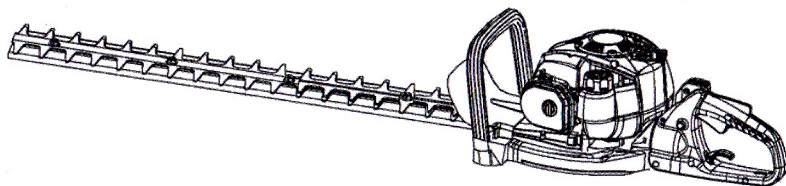


TOKAI®

Owner's manual TT28I HEDGE-TRIMMER



Caution

- Before using our hedge-trimmer, please read this manual carefully to understand the proper use of your unit.
- Keep this manual handy.

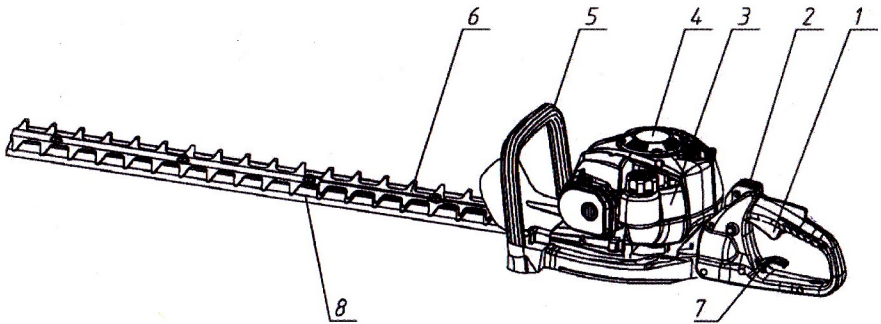
Safety first

Instructions contained in warnings within this manual marked with any symbol concern critical points which must be taken into consideration to prevent possible serious bodily injury, and for this reason you are requested to read all such instructions carefully and follow them without fail.

■ PARTS LOCATION

double sided:

- ① Throttle lever
- ② Stop Button Comp
- ③ Fuel tank
- ④ Starter
- ⑤ Plate Handle
- ⑥ Safety
- ⑦ Hand Grip
- ⑧ Blade



GRAPHIC WARNINGS

Because a trimmer/cutter is a high-speed, fast cutting power tool, special safety precaution must be observed to reduce the risk of personal injury. Read this manual carefully. Be familiar with the controls and the proper use of the unit. Know how to shut it off, and how to unhook a harnessed unit quickly.



This graphic accompanied by the words **WARNING** and **DANGER** calls attention to an act of a condition which can lead to **SERIOUS INJURY**.



READ & UNDERSTAND Operator's Manual and Safety Manual.



ALWAYS WEAR EYE AND EAR PROTECTION.



Always **TURN OFF ENGINE** and make sure the cutting tool has stopped before cleaning, removing or adjusting blade.

WARNING! Never modify a trimmer or cutter in any way. improper use of any trimmer can cause **SERIOUS OR FATAL PERSONAL INJURY**.

WARNING  **DANGER**

The engine exhaust from this product contains chemicals to cause cancer, birth defects, of other reproductive harm.

Specifications, descriptions and illustrative material in this manual are as accurate as known at the time of publication, but are subject to change without notice. Illustrations may include optional equipment and accessories, and may not include all standard equipment.

PREPARING FOR OPERATIONS

WHEN MIXING GASOLINE WITH TWO CYCLE 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.
DO NOT MIX GASOLINE AND OIL DIRECTLY IN THE ENGINE FUEL TANK.

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

1. When preparing fuel mixture, mix only the amount needed for the job you are to do. Do not use fuel 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 fresh mixture.

WARNING  **DANGER**

2. Never fill the fuel tank to the very top.
3. Never add fuel to the tank in a closed non-ventilated area.
4. Do not add fuel to this unit close to an open fire or sparks.
5. Be sure to wipe off spilled fuel before attempting to start engine
6. Do not attempt to refuel a hot engine.

CHECK POINTS BEFORE OPERATION

1. Check for loose bolts, nuts and fittings.
2. Check the air cleaner for dirt. Clean the air filter of all dirt, etc. before operation.
3. Check to be sure that protector is securely in place.
4. Check to be sure that fuel is not leak.

WARNING  **DANGER**

The engine exhaust from this product contains chemicals known to cause cancer, birth defects, or other reproductive harm.

■ SAFETY PRECAUTIONS

The instruction handbook shall include where appropriate the substance of the following.

- a) THIS MACHINE CAN CAUSE SERIOUS INJURIES. Read the instructions carefully for the correct handling preparation maintenance, starting and stopping of the machine. Be familiar with all controls and the proper use of the machine;
- b) never allow children to use the machine;
- c) avoid operating while people, especially children are nearby;
- d) dress properly! Do not wear loose clothing or jewellery which can be caught in moving parts. Use of sturdy gloves, Don-skiid footwear, and safety glasses is recommended;
- e) stop the engine or disconnect from mains before;
 - cleaning or when clearing a blockage;
 - checking, maintenance or working on the machine.
- f) while operating the machine always be sure of a safe and secure operating position especially when using steps or a ladder;
- g) handle fuel with care; it is highly flammable. Never add fuel to a machine with a running or hot engine. Do not inhale fuel fumes as they are toxic.

- h) do not attempt to repair the machine unless you are qualified to do so;
- i) do not operate the machine with a damaged or excessively worn cutting device;
- k) a warning of noise level and the need for ear protection;
- l) always ensure all handles and guards are fitted when using the machine. Never attempt to use an incomplete machine or one fitted with an unauthorized modification;
- m) where a hedge trimmer is provided with more than one handle always use two hands to operate it.
- n) when transporting or storing the machine always fit the cutting device guard;
- o) instructions for correct use and an indication that the machine should not be used for any other purpose;
- p) know how to stop the machine quickly in an emergency;
- q) always be aware of your surroundings and stay alert for possible hazards that you may not bear due to the noise of the machine.

■ BEFORE USING THE MACHINE

- a. Read this owner's manual carefully to understand how to operate this unit properly.
- b. This product has been designed for use in trimming leaves and branches from trees and hedges, and it should never be used for any other propose since doing so could result in unforeseen accidents and injuries occurring.
- c. You should never use this hedge-trimmer when under the influence of alcohol, when suffering from exhaustion or lack of sleep, when suffering from drowsiness as a result of having taken cold medicine, or at any other time when a possibility exists that your judgment might be impaired or that you might not be able to operate the hedge-trimmer properly and on a safe manner.
- d. Avoid running the engine indoors. The exhaust gases contain harmful carbon monoxide.
- e. Never use your hedge-trimmer under circumstance like those described below:
 - ① When the ground is slippery or when other conditions exist which might make it not possible to maintain a steady posture

while using the hedge-trimmer.

- ② At night, at times of heavy fog, or at any other times when your field of vision might be limited and it would be difficult to gain a clear view of the area.
 - ③ During rain storms, during lightning storms, at times of strong or gale-force winds, or at any other times when weather conditions might make it unsafe to use this product.
- f. When using this product for the first time, before beginning actual work, learn to handle the hedge-trimmer form skilled worker.
 - g. Lack of sleep, tiredness, or physical exhaustion results in lower attention spans, and this in turn leads to accidents and injury. Limit the amount of time over which the hedge-trimmer is to be used continuously to keep the total amount of work performed in a single day under 2 hours or less.
 - h. Be sure to keep this manual handy so that you may refer to it later whenever any questions arise.
 - i. Always be sure to include this manual when selling, lending, or otherwise transferring the ownership of this product.
 - j. Never allow children or anyone unable to fully understand the

directions given in this manual to use this hedge-trimmer.

■ WORKING GEAR AND CLOTHING

- a. When using your hedge-trimmer, you should wear proper clothing and protective equipment as follows.
 1. Helmet
 2. Protection goggles or face protector
 3. Thick work gloves
 4. Non-slip-sole work boots
 5. Ear protectors
- b. And you should carry with you things as follows.
 1. Attached tools and files
 2. Properly reserved fuel
 3. Spare blade
 4. Things to notify your working area (Rope, warning signs)
 5. Whistle (for collaboration or emergency)
 6. Hatchet or saw (for removal of obstacles)
- c. Never sue your hedge-trimmer when wearing pants with loose cuffs, when wearing sandals, or when barefoot.

■ WARNING CONSIDERING HANDLING OF FUEL

- a. The engine of this product is designed to run on a mixed fuel which contains highly flammable gasoline. You should never store cans of fuel or refill the fuel tank in any place where there is a boiler, stove, wood fire, electrical sparks, welding sparks, or any other source of heat or fire which might ignite the fuel.
- b. Smoking while operating the hedge-trimmer or refilling its fuel tank is extremely dangerous. Always be sure to keep lit cigarettes away from the hedge-trimmer at all times.
- c. When refilling the tank always turn off the engine first and take a careful look around to make sure that there are no sparks or open flames anywhere nearby before refueling.
- d. If any fuel spillage occurs during refueling, use a dry rag to wipe up spills before turning the engine back tightly onto the fuel tank and then carry the hedge-trimmer to a spot 3m or more away from where it was refueled before turning on the engine.

■ THINGS TO CHECK BEFORE USING YOUR HEDGE-TRIMMER

- a. Before beginning work, look around carefully to get a feel for the shape of the land, or grass to be trimmed, and obstacles which might get in the way while working, and remove any obstacles which can be cleared away.
- b. The area within a perimeter of 15m of the person using the hedge-trimmer should be considered a hazardous area into which no one should enter while the hedge-trimmer should be considered a hazardous area into which no one should enter while the hedge-trimmer is in use, and when necessary yellow warning signs should be placed around the work area. When work is to be performed simultaneously by two or more persons, always check the presence and locations of others so as to maintain a distance each person sufficient to ensure safety.
- c. Make sure that there are no loose screws or bolts, fuel leaks, ruptures, dents, or any other problems which might interfere with safe operation. Be especially careful to check that there is nothing wrong with the blades are attached to the hedge-trimmer.
- d. Never use blades that are bent, warped, cracked, broken or

damaged in any way.

- e. Keep the blade always sharp.
- f. Filing the cutting edges, keep the end corner sharp and round the root of the edge.
- g. Check the bolt to fasten the blade turns smoothly without abnormal noise.

■ NOTES ON STARTING THE ENGINE

- a. Take a careful look around to make sure that no obstacles exist within a perimeter of 15m or less around hedge-trimmer.
- b. Place the body of the hedge-trimmer onto the ground in a flat clear area and hold it firmly in place so as to ensure that neither the blades nor the throttle come into the contact with any obstacles when the engine starts up.
- c. Place the throttle into the idling position when starting the engine.
- d. After starting up the engine, if the blades continue to rotate even after the throttle has been moved fully back, turn off the engine and check the throttle wire and other parts.

■ KICKBACK SAFETY PRECAUTIONS

A dangerous reaction may occur when the spinning blade contacts a solid object in the critical area. It is called Kick back. As a result, the operator can lose control of the unit which can cause serious or fatal injury.

Avoid kickback, observe the safety precautions below strictly.

- a. Keep the cutting blades clear of fencing, plastic, wires, and rocks to prevent kickback and damage to the blades.
- b. When using your hedge-trimmer, do not grip other parts except the handles.
- c. When using your hedge-trimmer, never take your eyes off. If you need to, place the throttle into the idling position.
- e. When using your hedge-trimmer, do not let the unit get closer to your feet nor raise the unit above your waist.

■ NOTES ON TRANSPORTATION

- a. Make sure the appropriate blade cover is in place.
- b. When transporting by car, fix the unit firmly using a rope. Do not transport by bicycle or motorbike because it is dangerous.
- c. Never transport the hedge-trimmer over rough roads over long

distances without first removing all fuel from the fuel tank, as doing so might cause fuel to leak from the tank.

1. Before start

- (1) Promise the surroundings no man and animal;
- (2) Check the hedge-trimmer in detail, promise it in the safe appearance;
- (3) Beat the accelerator switch to the lowest position;
- (4) Have to make the hedge-trimmer with the adding-fuel place to keep at least 3m distance

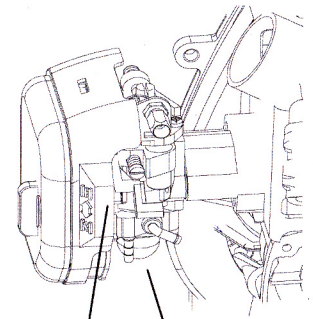


2. Start

- (1) Put the stop button on the starting position;
- (2) Push the fuel-injecting pump continuously until the fuel is full i.e. fuel flows out of the transparent tube.

See Figure 3(1);

- (3) Regulate the choker (See Figure 3(2))



(1) (2)

to close position in winter and at the first time to full open position when the engine is hot;

■ Insure the knife blade will not run into circumferential stumbling block.

(4) Pull the starter lightly for 3-5 times to make the fuel into the cylinder. Then pull it fast to start the engine. Note: The After start, the the start rope should be contracted back slowly with hand's help.

If the rope contracts back fast, it may cause damage of the starter;

(5) After start, put the choker slowly to full open position;

(6) Regulate the fuel handle to a proper position to run at low speed for 3-5 minutes, then make spraying operation.

New machine should not work at full open position within the first 4 hours. The speed should be controlled at 4000-5000r/min, thus enabling the engine to have a good match and do reliable job.

3. Shut down

(1) Beat the accelerator control switch to the lowest position to revolve more than 30s;

(2) Close the stop button to make the gasoline machine stop.

■ Suggest use a low vibration, the low voice mode.

■ Have to carry the protection equipments to wear protection

clothing perhaps while operate.

■ Operate time continuously can't be over an hour each time.

■ TROUBLE SHOOTING GUIDE

1. Failure to start

problem		probable cause		remedy	
cylinder compress pressure normal	spark plug spark normal	fuel system abnormality		these is no fuel in tank fuel filter obstruct	add fuel in tank clean fuel filter
		fuel system normal	fuel	fuel is too dirty there is water in fuel there is too much fuel in cylinder mixture ratio is improper	instead fuel instead fuel tear down spark plug and dry it mixture proration
	fuel system normal	high voltage wire spark normal	spark plug	spark plug fouled with oily eposits spark plug insulation deposits spark gap is too large or small	clean the oily deposits replace spark plug adjust spark gap (0.6-0.7)mm
high voltage wire spark abnormality		high voltage wire breachor break off coil looseness	replace or tighten tighten		
fule system normal	ignition system normal	compress press is shortage		piston ring attrite piston ring is brokeed piston ring cementation spark plug looseness conjoint surface of the cylinder and crank cass leak	replace a new replace eliminate tighten eliminate
		compress normal		high voltage wire and spark plug contact badness stop switch failure or short circuit	tighten the spark plug cap repair or replace

2.Low output

problem	probable cause	remedy
flameout when speedup the smoke is thin carburetor spout backward	fuel filter obstruct fall short of fuel muffler fouled with oily deposits	clean fuel filter、 clean fuel road、 adjust carburetor clean the oily deposits
compress press is shortage	piston、 piston ring、 cylinder attrite	replace piston、 piston ring
engine leak	conjoint surface of the cylinder and crank cass leak	repair
the end of two crank shaft leak	the seal is bad	replace seal
	engine overheats burning room fouled with oily deposits	avoid use it for long time 、high speed and heavy load clean the oily deposits

3.Engine running unstable

problem	probable cause	remedy
there are knock sound in engine	piston,piston ring,cylinder attrite piston pin,piston attrite bearing of crank shaft attrite	replace piston,piston ring replace piston pin,piston replace bearing
there are metal knock sound	engine overheats burning room fouled with oily deposits gasoline branded is unfit	avoid use it for long time 、 high speed and heavy load clean the oily deposits replace require branded octane
engine ignition break off	there is water in fuel spark gap is wrong coil gap is wrong	instead fuel adjust spark gap (0.6-0.7)mm adjust coil gap (0.3-0.4)mm

4.The engine suddenly stopped

probable cause	remedy
fuel is use up spark plug fouled with oily deposits and short circuit high voltage wire fall off	add fuel clean the oily deposits connect

■ SPECIFICATIONS

Name/Type		TT28I
Net Weight kg		5.7
Outward Size	Total Length mm	1130
	Total Width mm	250
	Total Height mm	230
Blade	Type	double sided
	Total Length mm	600
Power Transmission Method		Automatic centrifugal clutch, spur gear, cam-crank
Reduction Rate		5.1: 1 (46: 9)
Engine	Name of engine	1E32FL-S
	Type	Single cylinder air cooling 2-cycle gasoline engine
	Displacement Volume cc	22.5
	Maximum output (kW/r/min)	0.65/7500
	Fuel Tank Capacity	0.5
	Fuel Used	Mixture 30:1 (when using market oil)
	Lubricating Oil Used	2-cycle engine oil
	Carburetor	Diaphragm, rotary valve
	Sparking method	IC-controlled fly wheel magnet
	Sparking Plug	L9T
Starting Method		Recoil starter
Sound power values (db (a))		≤95
Vibration values(m/s ²)		≤15

Vibration test standard & Noise test standard:

LY/T 1619-2004: Garden machinery-Portable powered hedge-trimmers
Please note that due to improvement, detailed specifications of the product may differ from the information herein.