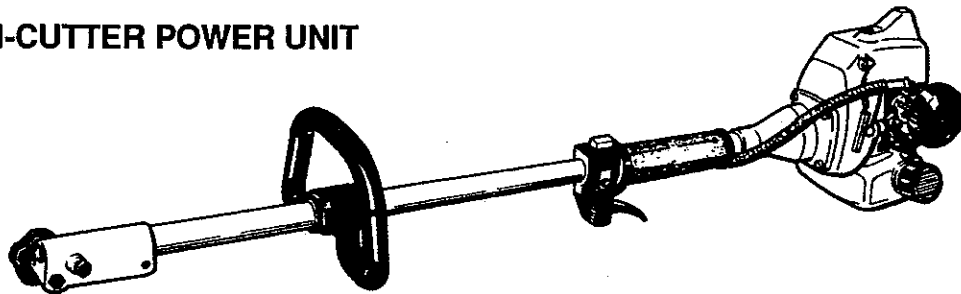




MULTI-CUTTER POWER UNIT

MT23



TOOL ATTACHMENTS

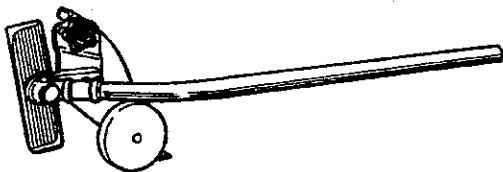
MT-S



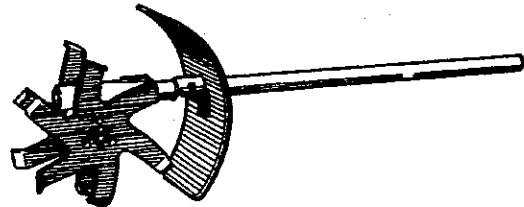
MT-C



MT-E



MT-T



Owner's/Operater's Manual

Completely read and understand this manual before using this product.

FOREWORD

This Owner's/Operator's Manual is designed to familiarize the operator with the various features and component parts of the equipment and to assist you with the assembly, operation and maintenance of your M-Line product.

It is essential that any operator of this M-Line product reads and understands this contents of this manual before using the Multi-Cutter and Tool Attachments.

Important safety instructions will be identified by the following safety symbol: 

Failure to comply with the instructions in this manual may result in serious injury or death.

For additional assistance, contact any local authorized M-Line dealer, or Maruyama U.S., Inc., 15436 N.E. 95th St., Redmond, WA 98073-2167. M-Line is a product of Maruyama Mfg. Co., Inc.

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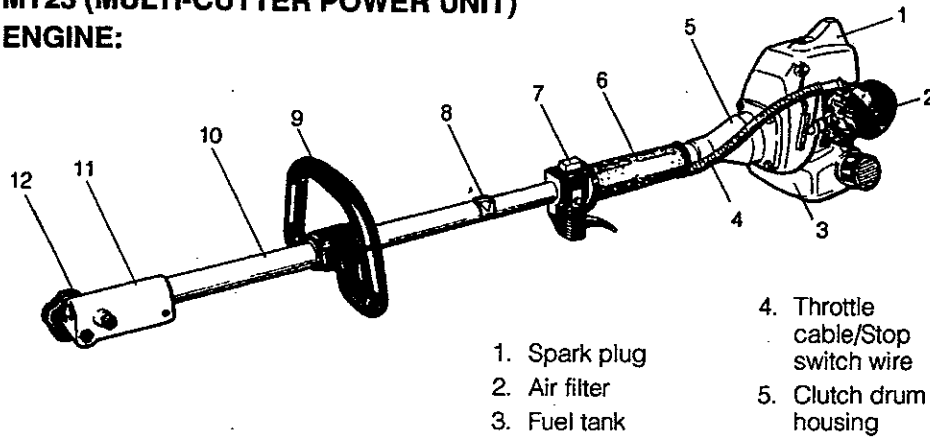
SPECIFICATIONS

Models	MT23+MT-S	MT23+MT-C	MT23+MT-E	MT23+MT-T
Dry Weight	10.2 lbs.	9.9 lbs.	12.2 lbs.	14.5 lbs.
Handle configuration	Loop			
Engine Displacement	22.5cc			
Fuel Tank Capacity	0.42Qts			
Carburetor	Walbro Diaphragm Type			
Ignition System	Solid State			
Spark Plug:				
Make	NGK			
Type	BPM6Y			
Electrode Gap	0.024-0.028in.			

Fuel Mixture:	
Using Maruyama 50:1 Two-Stroke Engine Oil	50:1
Using other 2-Stroke engine oils designed for air-cooled 2-Stroke (2-cycle) engines.	25:1

PRODUCT DESCRIPTION

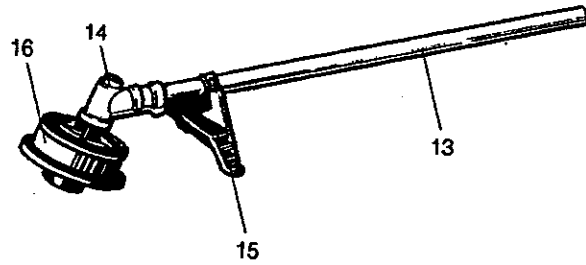
MT23 (MULTI-CUTTER POWER UNIT) ENGINE:



- 1. Spark plug
- 2. Air filter
- 3. Fuel tank
- 4. Throttle cable/Stop switch wire
- 5. Clutch drum housing
- 6. Shaft grip
- 7. Throttle Trigger/stop-switch
- 8. Attachment ring for shoulder harness
- 9. Loop handle
- 10. Shaft assembly
- 11. Shaft coupler
- 12. Clamping-knob

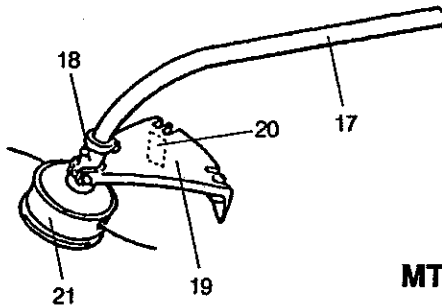
MT-S (STRAIGHT SHAFT TOOL ATTACHMENT)

- 13. Shaft Assembly
- 14. Gear case
- 15. Shield
- 16. Trimmer head



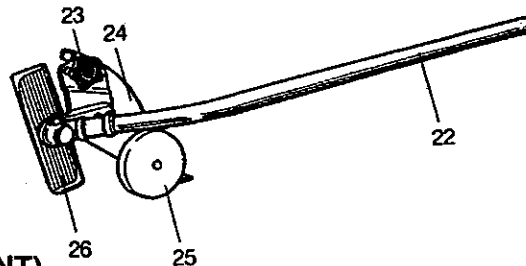
MT-C (CURVED SHAFT TOOL ATTACHMENT)

- 17. Shaft assembly
- 18. Bearing case
- 19. Shield
- 20. String-cutter blade
- 21. Trimmer head



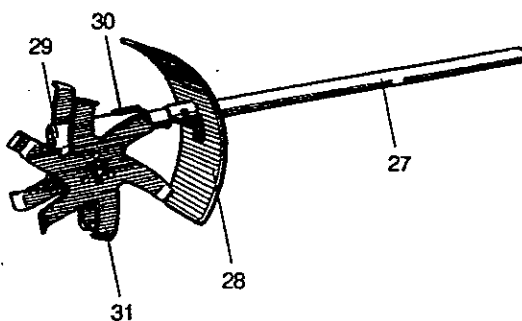
MT-E (EDGER TOOL ATTACHMENT)

- 22. Shaft assembly
- 23. Clamping-knob
- 24. Shield
- 25. Wheel
- 26. Blade



MT-T (CULTIVATOR TOOL ATTACHMENT)

- 27. Shaft assembly
- 28. Shield and bracket
- 29. Gear case
- 30. Grease fitting
- 31. Cultivator tines





SAFETY INSTRUCTIONS



Operator safety

1. Read and understand this Owner's/Operator's Manual before using the equipment. Be thoroughly familiar with the proper use of the multi-cutter and the tool attachments.
2. Never allow children to operate the multi-cutter. It is not a toy. Never allow adults to operate the unit without first reading the Owner's/Operator's Manual.
3. Become familiar with the controls and know how to stop the engine quickly.
4. ALWAYS WEAR SAFETY GLASSES or other suitable eye protection and hearing protection.
5. Keep the area of operation clear of all persons, particularly small children and pets.
6. Never operate a multi-cutter when you are fatigued.
7. Never operate a multi-cutter without proper guards or other protective safety devices in place.
8. Dress properly; do not wear loose clothing or jewelry. They can be caught in moving parts. Always wear substantial footwear, long pants, and long sleeved shirt.
9. Gasoline is highly flammable; handle it carefully. Fill the fuel tank with the correct mixture of gasoline and oil before trying to start the engine.
 - A. Use an approved fuel container for storing the gasoline/oil mixture.
 - B. Do not fill the tank when the engine is hot or running.
 - C. Do not smoke while handling gasoline.
 - D. Fill the fuel tank outdoors and up to about one-half inch from the top of the tank, not the top of the filler neck.
 - E. Wipe any spilled gasoline before starting the engine.
10. Always be sure of your footing; keep a firm hold of the handles with both hands, and walk, never run.
11. Use the right tool for the job. Do not use the multi-cutter and tool attachments for any job that is not recommended by the manufacturer.
12. Keep all fasteners tight to be sure the multi-cutter is in safe working condition. Follow the maintenance instructions provided on page 15 to 17 this manual.
13. Do not put hands or feet near or under any moving parts. Keep clear at all times.
14. If the multi-cutter should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
15. Do not trim too close to the ground in order to avoid hitting small stones or other debris. Avoid using the multi-cutter near rocks, gravel, stones and similar matter.
16. Use the multi-cutter only in daylight or good artificial light.
17. Shut off the engine and be certain the cutter head has completely stopped rotating before inverting the machine.

ASSEMBLY INSTRUCTIONS

MT23 (POWER UNIT)

ENGINE AND DRIVESHAFT ASSEMBLY

The driveshaft, clutch drum housing and gearhead are assembled. Attach the powerhead to the driveshaft assembly using the four M5x20 screws supplied with the powerhead.

LOOP HANDLE INSTALLATION

The loop handle kit should contain a package of four screws, four nuts, a rubber sleeve and the bottom clamp for the loop handle. Slip the rubber sleeve around the driveshaft approximately 9 inches from the end of the stop switch/throttle trigger assembly for an initial handle position. Rotate the sleeve so that the split is to one side. Place the loop handle and the bottom clamp over the rubber sleeve. Install the four screws and nuts. Tighten the screws evenly. Remove and reposition the loop handle further up or down the driveshaft, if required, for best operator position.

THROTTLE CABLE AND STOP SWITCH WIRING

Install the plastic tube (packed with the cutting device) around the throttle cable and stop switch wires.

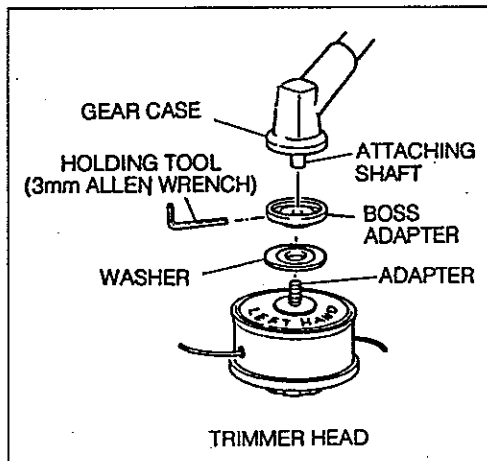
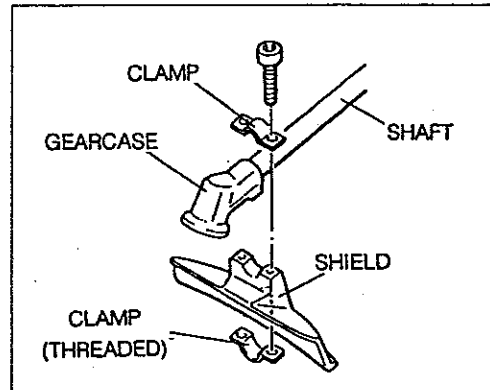
Insert the throttle cable through the bracket on the carburetor. Make sure that the end of the cable housing fits into the sleeve on the adjuster fitting. Position the slotted fitting on the carburetor so that the recessed hole for the cable lug is away from the cable adjuster fitting. Rotate the throttle barrel by hand to bring the cable fitting closer to the cable then slip the throttle cable through the slot on the fitting. Make sure that the cable lug drops into the recessed hole.

Operate the throttle trigger a few times to make sure that it works properly. When the throttle trigger is released, the stop on the throttle cam on the carburetor should contact the idle speed adjuster screw.

MT-S (STRAIGHT SHAFT TOOL ATTACHMENT)

Only the installation of the shield is required.
The shield installs onto the shaft with two screws, as shown.

Note: Use 3mm allen wrench (from tool kit) as a holding tool to lock the attaching shaft while installing cutting devices (see sketches).

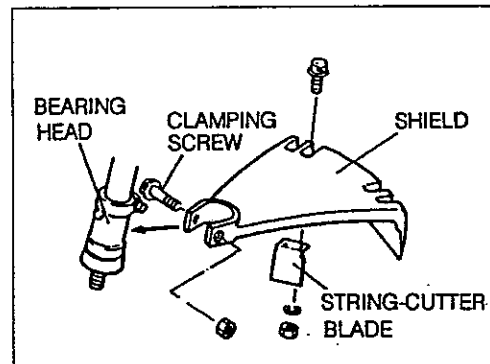


Install the trimmer head, as shown. Be sure the trimmer head is for LEFT-HAND rotation (as viewed from the operator's position) and the trimmer head adapter matches the internally-threaded splined attaching shaft of the tool (M8 x 1.25 LEFT-HAND).

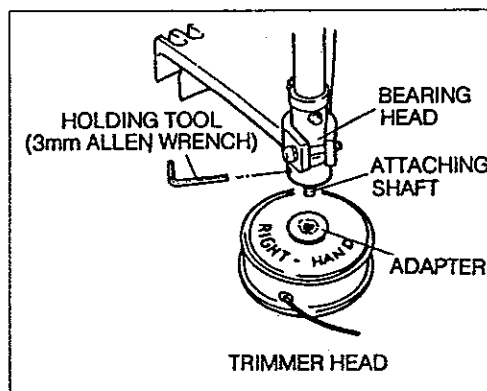
IMPORTANT— The boss adapter and the washer (see sketch) must be installed on the splined shaft between the gearcase and the trimmer head assembly.

MT-C (CURVED SHAFT TOOL ATTACHMENT)

Only the assembly and installation of the shield is required. Refer to the sketch and attach the string-cutter blade to the shield with two screws, nuts, and washers. Push the shield onto the bearing-head housing. Install the clamping screw and tighten **ONLY AS NEEDED**.

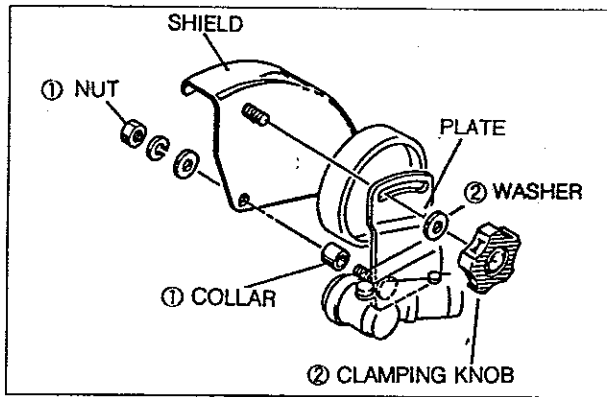


Note: Use 3mm allen wrench (from tool kit) as a holding tool to lock the attaching shaft while installing cutting devices (see sketches).



Install the trimmer head, as shown. Be sure the trimmer head is for RIGHT-HAND rotation (as viewed from the operator's position) and the trimmer head adapter matches the threaded attaching shaft of the tool (M8 X 1.25 RIGHT-HAND).

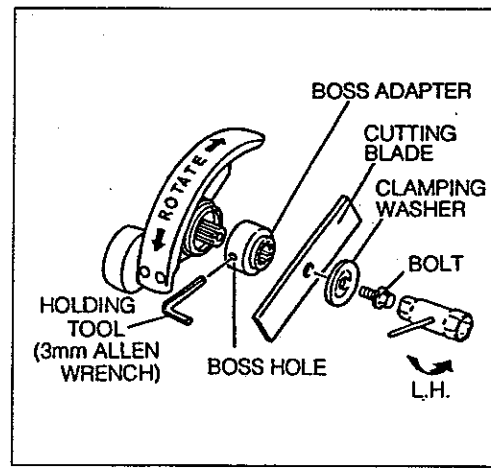
MT-E (EDGER TOOL ATTACHMENT)



Nip the collar as sketched and fix the shield and the plate with nut and washers (①), and then with clamping knob and washer (②).

Rotate the boss adapter to align the holes for inserting the holding tool. With the holding tool inserted, place the cutting blade onto the boss adapter, and then the clamping washer onto the splined shaft. Finally, the blade bolt must be installed.

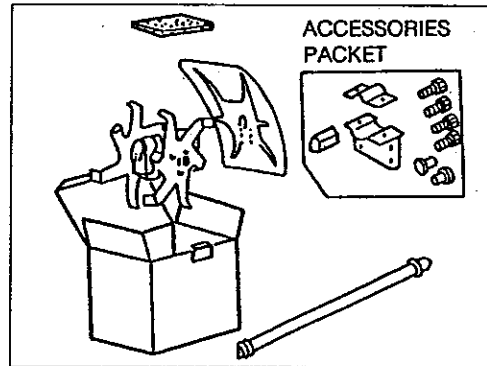
The bolt is threaded LEFT-HAND, and must be tightened quite securely (100 in. lbs.).



MT-T (CULTIVATOR TOOL ATTACHMENT)

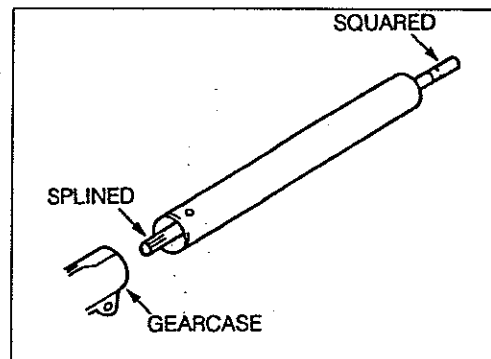
The M-Line Cultivator Tool Attachment is packed into one carton except for the separate driveshaft tube assembly.

Please refer to sketch and be sure that all components were packed.



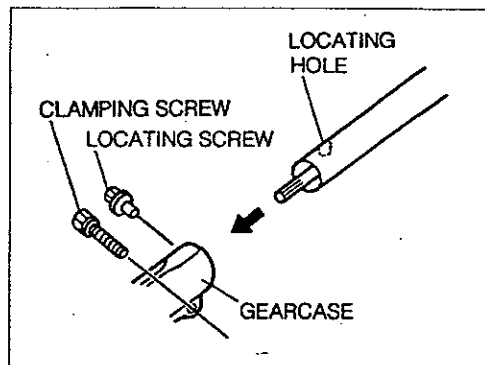
(a) Attach the driveshaft tube assembly to the cultivator gearcase assembly.

Note: Carefully inspect both ends of the driveshaft protruding from the driveshaft tube. The squared end of the driveshaft positions toward the connector of the power unit. The splined end of the driveshaft connects to the cultivator gearcase assembly (see sketch).



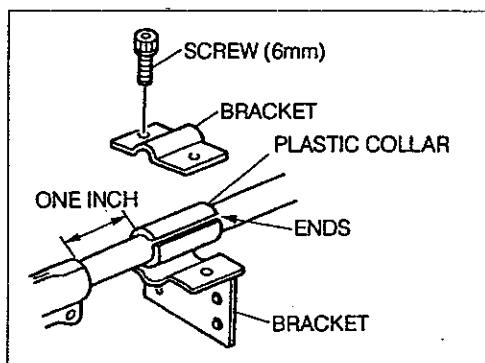
Insert the driveshaft tube assembly into the cultivator gearcase assembly while rotating the driveshaft to engage the splines.

Align the locating holes and install the locating screw through the side of the gearcase. Then tighten the clamping screws (see sketch). If properly installed, rotating the square end of the driveshaft will cause the cultivator tines to turn.

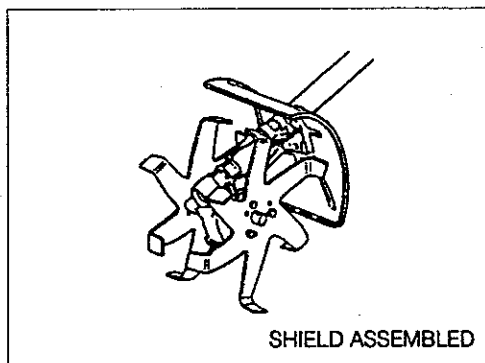
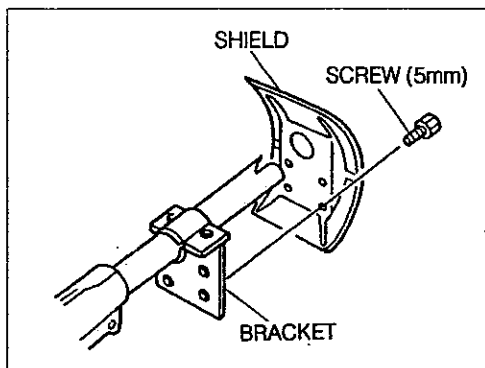


(b) Attach the shield onto the driveshaft tube assembly.

Place the plastic collar onto the driveshaft tube approximately one inch from the cultivator gearcase, locating the ends as shown in sketch. Then place the two bracket parts onto the plastic collar and fasten securely with two 6mm screws. Attach the shield to the bracket with four 5mm screws.



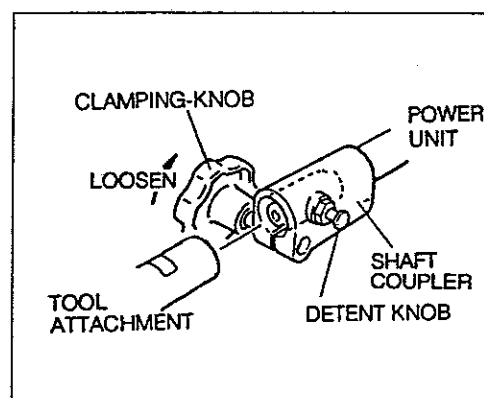
The M-Line Cultivator Tool Attachment is now completely assembled (see sketches).



CONNECTING THE TOOL ATTACHMENTS TO THE POWER UNIT

First, loosen the clamping-knob so the shaft of the tool attachment can be inserted into the shaft coupler. Pull the detent knob outward and gently rotate the attachment shaft back and forth while inserting to be sure the driveshafts. The spring-loaded detent knob will snap into place when the attachment shaft is correctly positioned. Tighten the clamping-knob.

When changing the tool attachment, be careful not to over-loosen the clamping-knob to prevent it from falling.



BEFORE OPERATION

FUEL: MIXING GASOLINE AND OIL

WARNING! The engine used on this multi-cutter is of a two-stroke (2-cycle) design. The internal moving parts of the engine, i.e., crankshaft bearings, piston pin bearings and piston to cylinder wall contact surfaces, require oil mixed with the gasoline for lubrication. Failure to add oil to the gasoline or failure to mix oil with the gasoline at the appropriate ratio will cause major engine damage which will void your warranty. For your fuel premix, only use Maruyama 50:1 2-Cycle Oil or a quality oil designed for two-stroke air-cooled engines.

FUEL MIXTURE: When using genuine Maruyama 50:1 2-Cycle Oil, the fuel:oil ratio is 50 parts gasoline to 1 part oil or 50:1. If Maruyama two-stroke engine oil is not available, use a good quality two-stroke, air-cooled engine oil mixed at a ratio of 25:1.

Note: If Maruyama oil is not used, never use a mixing ratio less than 50:1 regardless of the oil package mixing instructions. Ratios less the 50:1, (for example, 60:1, 80:1, 100:1), reduce the amount of lubrication to the internal moving parts of the engine and can cause damage.

FUEL MIXTURE CHART:

Gasoline	Maruyama 50:1 2-Cycle Oil	Gasoline	Other brands of 2-cycle oil
1 gallon	2.6 oz.	1 gallon	5.2 oz.
2 1/2 gallons	6.4 oz.	2 1/2 gallons	12.8 oz.
5 gallons	12.8 oz.	5 gallons	25.6 oz.

MIXING INSTRUCTIONS: Always mix fuel and oil in a clean container approved for gasoline. Mark the container to identify it as fuel mix for the multi-cutter. Use regular unleaded gasoline and fill the container with half the required amount of gasoline. Pour the correct amount of oil into the container then add the remaining of gasoline. Close the container tightly and shake it momentarily to evenly mix the oil and the gasoline before filling the fuel tank on the multi-cutter.

Always use a spout or funnel when fueling to reduce fuel spillage. Only fill the tank to within 1/4-1/2 inch from the top of the tank. Avoid filling to the top of the tank filler neck.

When refilling the multi-cutter fuel tank, clean around the fuel tank cap to prevent dirt and debris from entering the tank during cap removal. Always shake the premix fuel container momentarily before filling the fuel tank.

Note:

1. *Never mix gasoline and oil directly in the multi-cutter fuel tank.*
2. *Do not use National Marine Manufacturer's Association (NMMA) or BIA certified oils. This type of two-stroke engine oil does not have the proper additives for air-cooled, two-stroke engines and can cause engine damage.*
3. *Do not use automotive motor oil. This type of oil does not have the proper additives for air-cooled, two-stroke engines and can cause engine damage.*

FUELING

WARNING! The following precautions will lessen the risk of fire.

1. Do not smoke near fuel.
2. Mix and pour fuel outdoors and where there are no sparks or flames.
3. Always shut off the engine before refueling. Never remove the multi-cutter fuel tank cap while the engine is running or right after just stopping the engine.
4. Always open the fuel tank cap slowly to release any possible overpressure inside the tank.
5. Do not overfill the fuel tank. Stop filling 1/4-1/2 inch from the top of the tank.
5. Tighten the tank fuel cap carefully but firmly after refilling.
7. Wipe up any spilled fuel before starting the engine.
8. Move the multi-cutter at least 10 feet away from the fueling location and fuel storage container before starting the engine.

STARTING AND STOPPING PROCEDURE

Before Starting The Engine: Fill the fuel tank as instructed in the BEFORE OPERATION section of this manual. Reset the multi-cutter on the ground. Make sure that the tool attachments is clear of branches, shrubs, debris, etc., and can turn freely. Keep all bystanders, children and animals at least 50 ft. (15 m) away from the working area.

This M-Line multi-cutter is equipped with a fuel primer and idle start system. The fuel primer and idle start systems make M-Line multi-cutter extremely easy to start regardless of the engine and/or ambient temperature.

The fuel primer draws fuel from the tank up to and through the carburetor where it initially primes (fills) all of the fuel passages while forcing out air. The air and excess fuel is returned to the fuel tank through the fuel return hose. **The fuel priming system does not allow fuel to**

flow into the engine so it is not possible to over prime or flood the engine regardless of the number of times the fuel primer bulb is depressed.

M-Line's idle start (fuel enrichment) system is superior to a choke starting system. With choke equipped two-stroke engines, it is usually necessary to lock the throttle partially open during starting to reduce the risk of flooding the engine with fuel. You then have to close the choke and pull the starter grip until the engine tries to start. Then you have to open the choke and pull the starter grip again until the engine starts and runs.

This also means that when the engine starts, it will be running above idle or clutch engagement speed causing the tool attachments to rotate.

With M-Line's idle start system it is not necessary nor recommended to partially open the throttle during starting. Rotating the cold starting lever to the locked position lifts the needle jet permitting a metered amount of extra fuel to enter the engine during starting. After the engine starts, one squeeze of the throttle trigger returns the cold start lever to the off position and the multi-cutter is ready for use.

To Start A Cold Engine:

1. Push and release the fuel primer bulb located on the bottom of the carburetor until air bubble free fuel is seen flowing through the clear fuel return hose back to the fuel tank.
2. Rotate the cold start lever about a quarter turn clockwise to the locked position. **Do not depress the throttle trigger.** Depressing the throttle trigger before the engine starts will automatically return the cold start lever to the off position.
3. Set the engine stop switch to the "ON" position. Pull the starter grip until the engine starts. Once the engine is running, depress and release the throttle trigger quickly to automatically return the cold start lever to the off position.

To Start A Warm Engine:

1. Push and release the fuel primer bulb located on the bottom of the carburetor until air bubble free fuel is seen flowing through the clear fuel return hose back to the fuel tank.
2. Set the engine stop switch to the "ON" position. With the throttle trigger in the idle running position, pull the starter grip until the engine starts. If the engine fails to start after 3 or 4 pulls on the starter grip, follow steps 2 and 3 in the previous **To Start A Cold Engine** section.

To Stop The Engine:

1. Release the throttle trigger.
2. Slide the stop switch to the "STOP" position.

CARBURETOR ADJUSTMENT

This M-Line multi-cutter is equipped with non-adjustable fuel mixture carburetor. The engine idle speed is the only adjustment accessible to the Operator.

The tool attachments may be spinning during idle speed adjustment. Wear the recommended personal protective equipment and observe all safety instructions.

Engine Idle Speed:

When the throttle trigger is released the engine should return to an idle speed which is 2700 ~ 3300 rpm or just below clutch engagement speed. The tool attachments must not rotate and the engine should not stall (stop running) at engine idle speed.

The engine idle speed is adjusted by rotating the idle speed screw on the carburetor. Turning the idle speed screw in (clockwise) increases engine speed while turning the screw out decreases engine speed.

If idle speed adjustment is necessary and after adjustment the tool attachments rotate or the engine stalls, **stop using the multi-cutter immediately!** Contact your local authorized M-Line for assistance and servicing.

OPERATING THE MULTI-CUTTER AND TOOL ATTACHMENTS



CAUTION-Read the SAFETY INSTRUCTIONS on page (4) concerning the proper use of the multi-cutter and Tool Attachments.

The M-LINE multi-cutter and Tool Attachments are designed and tested to cut nearly all grasses, thick weeds, and brush. As you continue to use the equipment, many tasks will become easier.

By adjusting the handles, the M-Line multi-cutter can be operated while standing in a natural position, and can be positioned at the right or left side of the operator (EXCEPT THE EDGER TOOL ATTACHMENT MT-E). To adjust the loop handle, see the ASSEMBLY INSTRUCTIONS on page (5).

If it is necessary to reposition the shaft grip, loosen the clamping screw of the throttle trigger assembly before moving the grip. Then use caution to prevent any damage to the throttle cable and stop-switch connections.

Be sure the throttle trigger assembly is in place firmly against the shaft grip before tightening the clamping screw.



Adjust the shield to a position that does not make contact with the blade or trimming line, and shields the operator from thrown debris (See ASSEMBLY INSTRUCTIONS for shields).



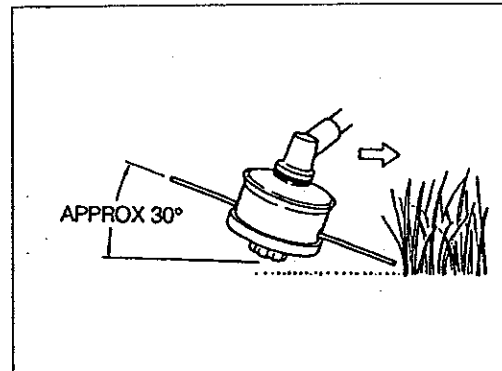
Always be sure the Tool Attachments are properly connected to the Power Unit (See ASSEMBLY INSTRUCTIONS).



Remove any holding tools before operating the equipment!

CUTTING WITH NYLON TRIMMER LINE

MODELS MT-C AND MT-S: It is only the outer tip (or end) of the trimmer line that performs the actual cutting action. The trimming operation can be a side to side or forward and backward motion. Tilting the trimmer head slightly downward when moving toward the area being cut produces a better result (see sketch).



Moving too fast or forcing the unit will cause trimmer line breakage, entanglement, or stalling the engine. Do not attempt to cut thick, stalky weeds or brush that exceeds the capability of the machine (Continuous overload may cause damage to the machine). Whenever grass or debris winds onto the shaft or trimmer head, immediately stop the machine and remove the interfering material.

EDGER OPERATION

MODEL MT-E:

Refer to the ASSEMBLY INSTRUCTIONS and properly secure the edger tool attachment to the power unit, and securely install the cutting blade.

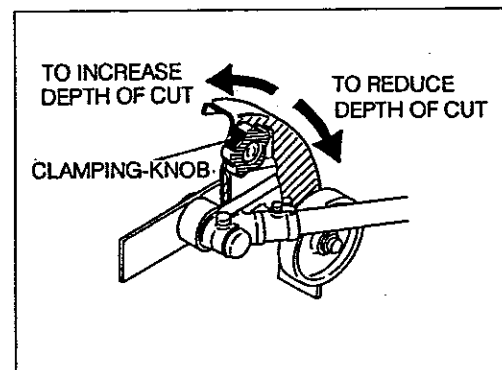


CAUTION-Remove any holding tools before operating the equipment!



The cutting depth should be established before starting the engine.

To adjust the cutting depth, first loosen the clamping-knob. Then rotate the shield forward or backward until the desired cutting depth is acquired (see sketch). Tighten the clamping-knob ONLY AS NEEDED.





When adjusting the cutting depth, do not use the clamping-knob to rotate the shield. Otherwise, the screw of the clamping-knob will be damaged.

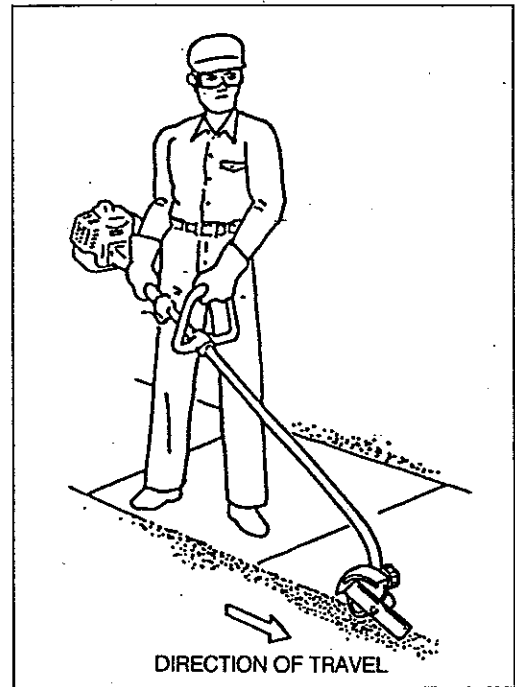


Always operate the edger positioned at the RIGHT-SIDE of the operator (see sketch).

Be sure the blade is rotating (at least half-throttle) before inserting it into the cut. The multi cutter edger performs best at full throttle.



Always use eye protection when operating the edger.

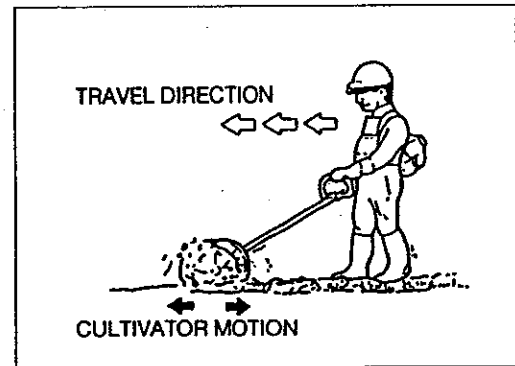


CULTIVATOR OPERATION

MODEL MT-T:

Refer to the **ASSEMBLY INSTRUCTIONS** and properly secure the Cultivator tool attachment to the power unit.

The Cultivator Tool Attachment should be operated only while traveling forward. Working the cultivator with a back-and-forth motion while traveling produces the best results. A fast or slow engine speed can be used according to soil conditions.



CAUTION-Do not operate the Cultivator Tool Attachment in hard un-tilled soil.



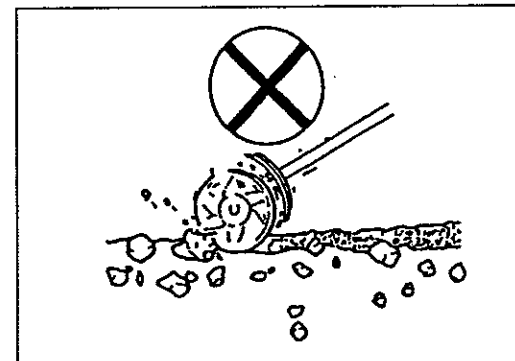
CAUTION-Do not operate the Cultivator Tool Attachment in rocky areas.



CAUTION-Do not operate the Cultivator Tool Attachment in areas with vines or tree roots.



CAUTION-Do not operate the Cultivator Tool Attachment in water.

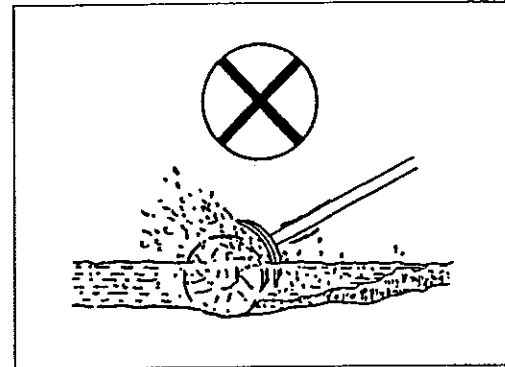
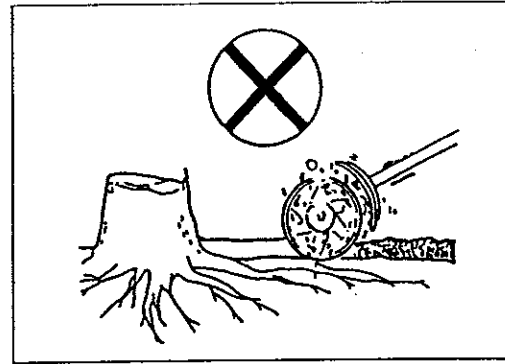




If the cultivator tines become jammed, stop the engine immediately. Make certain all moving parts have stopped, and disconnect the spark plug before attempting to remove any obstruction.



The cultivator gearcase becomes very hot during operation. Do not touch the gearcase.



REGULAR MAINTENANCE

AIR FILTER

Maintenance Interval: The air filter should be cleaned daily or more often when working in extremely dusty conditions and replaced after every 100 hours of operation.

Maintenance: Remove the air filter cover by unscrewing the single cover retaining screw. Remove the foam filter. Clean the filter with warm, soapy water. Let the filter completely dry. Lightly apply SAE 30 motor oil to the foam filter and squeeze out all excess oil. Reassemble the filter and filter cover.

FUEL FILTER

Maintenance Interval: The fuel filter should be replaced after every 100 hours of operation.

Maintenance: The fuel filter is attached to the end of the fuel pick-up hose inside the fuel tank. To replace the fuel filter, first make sure the fuel tank is empty. Remove the fuel cap. Using a wire hook, gently pull the fuel filter out through the fuel filler opening. Grasp the fuel hose next to the fuel filter fitting and remove the filter **but do not release the hose**. While still holding on to the fuel hose, attach the new fuel filter. Drop the fuel filter back into the fuel tank. Make sure that the fuel filter is not stuck in a corner of the tank and that the fuel hose is not doubled over (kinked) before refueling.

SPARK PLUG

Maintenance Interval: The spark plug should be removed from the engine and checked after each 25 hours of operation and replaced after every 100 hours of operation.

Maintenance: Remove the cylinder cover. Twist the high tension lead boot on the spark plug back and forth a couple of times to loosen boot then pull the boot off of the spark plug. Remove the spark plug. The electrodes can be cleaned with a stiff brush. Adjust the electrode air gap to 0.024–0.028 in. (0.6–0.7 mm). Replace the spark plug if it is oil-fouled, damaged or if the electrodes are worn down. **Do not overtighten the spark plug when installing.** The tightening torque is 95–148 in. lbs. (10.7–16.6 Nm).

CYLINDER COOLING FINS

Maintenance Interval: The cylinder cooling fins should be cleaned after every 25 hours of operation or once a week whichever ever comes first. Air must flow freely around and through the cylinder cooling fins to prevent engine overheating. Leaves, grass, dirt and debris buildup on the fins will increase the operating temperature of the engine which can reduce engine performance and shorten engine life.

Maintenance: With the engine at ambient (room) temperature, remove the cylinder cover and clean all dirt and debris from the cooling fins and from around the cylinder base. Reinstall the cylinder cover.

SPARK ARRESTOR

Maintenance Interval: The spark arrestor should be inspected and cleaned after every 25 hours of use. Replace the screen if it cannot be thoroughly cleaned or if it is damaged.

Maintenance: The spark arrestor is installed inside the exhaust outlet of the muffler. One screw located on the side of the exhaust outlet holds the spark arrestor in place. To remove the spark arrestor, first remove the retaining screw then using a suitable pair of pliers, withdraw the spark arrestor. Do not crush or distort the spark arrestor flange during removal.

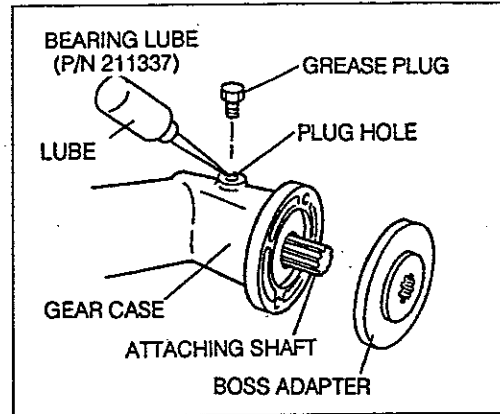
The screen can be cleaned using a non-flammable solvent and a stiff wire brush. To install insert the spark arrestor into the exhaust outlet while aligning the holes in the arrestor flange and outlet for the retaining screw. Install the screw.

LUBRICATION: GEARCASE

MODEL MT-S:

The gearcase should be checked for lubrication after each 30 hours of use. Remove the cutting attachment and the boss adapter (see sketch). Clean any dirt and debris from the area between the boss adapter and the gearcase. Remove the grease plug from the side of the gearcase.

While rotating the attaching shaft, inject lithium-base bearing lube (P/N 211337) through the plug hole until the gearcase is full. Re-install the boss adapter and grease plug.

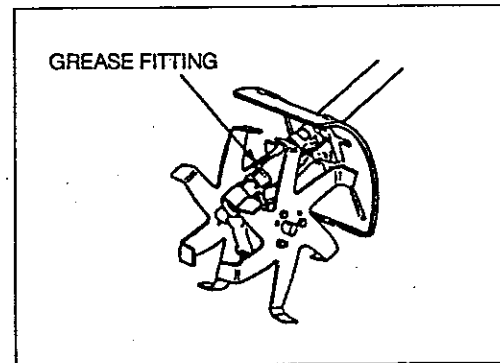


MODEL MT-E:

Follow the direction for the model MT-S. Inject the lube (P/N 211337) through the plug hole until the gearcase is full.

MODEL MT-T:

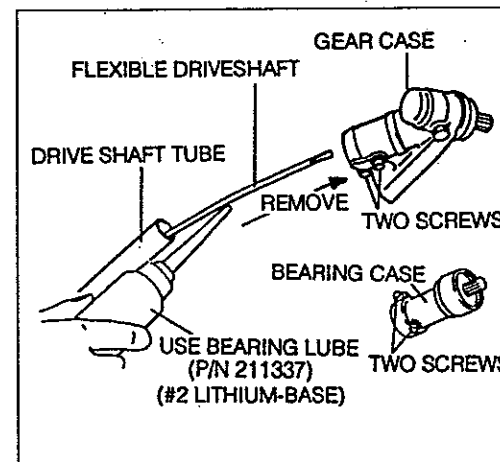
The cultivator gearcase holds 1.4 ounces of lubricant. A grease fitting is located in the top of the gearcase (see sketch). Lubricant should be checked at least every 25 hours of operation. Use a #2 lithium-based EP lubricant with Molybdenum additive.



LUBRICATION: FLEXIBLE DRIVESHAFT

MODELS MT-C AND MT-E:

These models contain a flexible driveshaft inside the driveshaft tube. The flexible driveshaft should be lubricated after each 30 hours of operation. Loosen the two screws on the gearcase (bearing case on MT-C) and remove the gearcase (bearing case). The inner flexible driveshaft is easily removed by gripping the end securely and pulling it from the driveshaft tube. Lubricate the entire length of the flexible driveshaft and insert it into the driveshaft tube. If the tool attachment is connected to the power unit, twist the flexible shaft while pushing to insure that it seats correctly into the driveshaft coupler. Re-install the gearcase (bearing case) onto the driveshaft tube and tighten the two screws.



STORAGE

For long-term storage of the multi-cutter, empty the fuel tank into a suitable fuel storage container. Pump the primer bulb on the carburetor until all fuel is discharged through the clear fuel return hose. Run the engine to remove any fuel that may remain in the carburetor. Perform all regular maintenance procedures and any needed repairs. Remove the spark plug and squirt a very small amount of oil into the cylinder. Pull the starter cord once.

CAUTION: Oil may squirt out of the spark plug opening while pulling the starter cord. Protect your eyes and keep your face away from the spark plug opening.

Slowly pull the starter cord to bring the piston to the top of the cylinder (TDC). Reinstall the spark plug. Store the multi-cutter in a dry place away from excessive heat, sparks or open flame.



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