MAINTENANCE

WARNING: To avoid serious personal injury, always stop the engine and allow it to cool before cleaning or maintaining the unit. Never perform cleaning or maintenance while the unit is running. Disconnect the spark plug wire to prevent the unit from starting accidentally.

WARNING: Wear protective clothing and observe all safety instructions to prevent serious personal injury.

MAINTENANCE SCHEDULE

Perform these required maintenance procedures at the frequency stated in the table. These procedures should also be a part of any seasonal tune-up.

NOTE: Some maintenance procedures may require special tools or skills. If you are unsure about these procedures, take the unit to an MTD authorized service dealer.

NOTE: Maintenance, replacement, or repair of the emission control devices and system may be performed by an MTD authorized service dealer.

NOTE: Please read the California/EPA statement that came with the unit for a complete listing of terms and coverage for the emissions control devices, such as the spark arrestor, muffler, carburetor, etc.

FREQUENCY	MAINTENANCE REQUIRED
Every 10 hours	• Clean and re-oil the air filter. Refer to *Maintaining the Air Filter.*
After the first 10 hours and at 38 hours	• Change the oil. Refer to *Changing the Oil.* • Have the rocker arm clearance checked by an authorized service dealer. • Check the spark plug condition and gap. Refer to *Maintaining the Spark Plug.*

REPLACING THE TRIMMING LINE

Only use the trimming line described in the *Specifications* section. Other types of trimming line may cause the unit to overheat or fail.

WARNING: Never use metal-reinforced line, wire, chain or rope. These can break off and become dangerous projectiles.

NOTE: Always use the correct line length when installing trimming line. The line may not release properly if the line is too long.

NOTE: The cutting head will remain attached to the unit.

NOTE: DO NOT disassemble the cutting head to install new line.

Installing New Trimming Line

1. If necessary, remove any old trimming line and/or obstructions from the cutting head. Refer to *Removing Old Trimming Line and Obstructions.*
2. Cut two 10-foot (3.0 m) lengths of new trimming line. Cut one end of each line at a 30 degree angle (Fig. 20).
3. Turn the bump knob to align the arrows on the bump knob with the arrows on the spool cover (Fig. 19).
4. Insert one of the lines into an eyelet on the cutting head (Fig. 20). Use the angled end and push the line in about 3 inches (7.5 cm). Repeat this process with the other line and remaining eyelet.
5. Turn the bump knob to wind the line until about 5 inches (12.5 cm) protrude from each side of the cutting head (Fig. 21).

NOTE: DO NOT push the bump knob down while winding the line. The bump knob will only turn one way, depending upon the unit model.

NOTE: If too little line is left protruding, it could retract inside the cutting head.

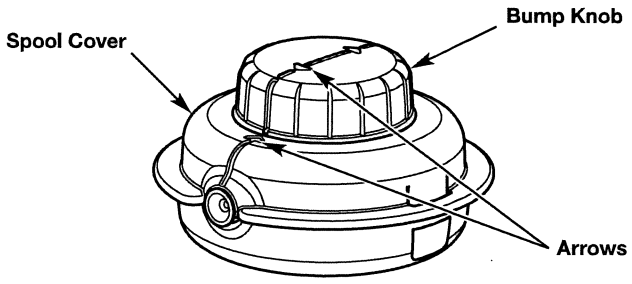

Fig. 19

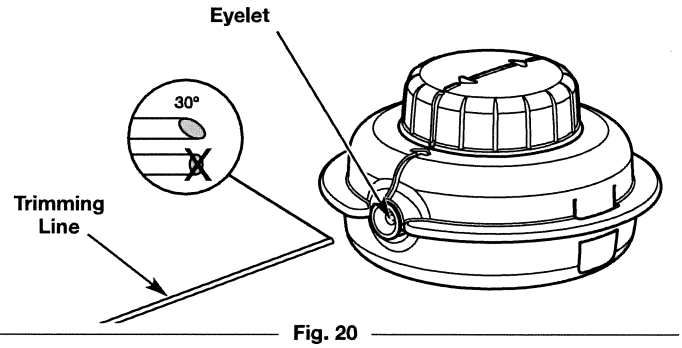

Fig. 20

Removing Old Trimming Line and Obstructions

1. When the trimming line runs out, the last piece should automatically eject from the cutting head. If it does not, push the bump knob down and pull the remaining line out of the cutting head.
2. If the line will not come out or the cutting head is otherwise obstructed:
   a. Firmly press a tab on the cutting head with your thumb (Fig. 22). **DO NOT** press the tab with a screwdriver or other object.
   b. Continue pressing the tab. Insert a flat-head screwdriver into the gap between the outer spool and tab (Fig. 22).
   c. Gently tilt the screwdriver to unlock the tab from the hole (Fig. 23).
   d. Repeat the previous steps for the other tab.
   e. Remove the spool cover (Fig. 23). **DO NOT** attempt to remove any other parts of the cutting head.
   f. Remove any old trimming line and/or obstructions.
   g. Use a clean cloth to clean the inner reel, outer spool and spool cover (Fig. 23).
   h. Align the tabs on the spool cover with the holes on the outer spool (Fig. 23). Push the spool cover onto the outer spool until the tabs securely snap into the holes.

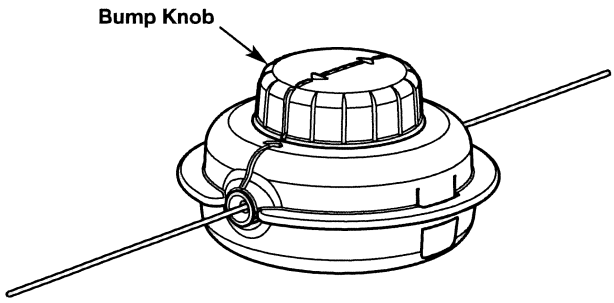

Fig. 21

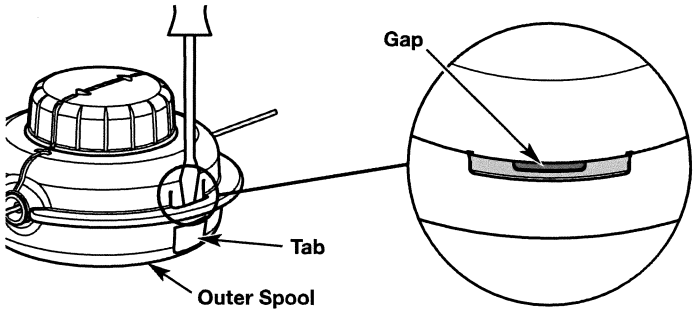

Fig. 22

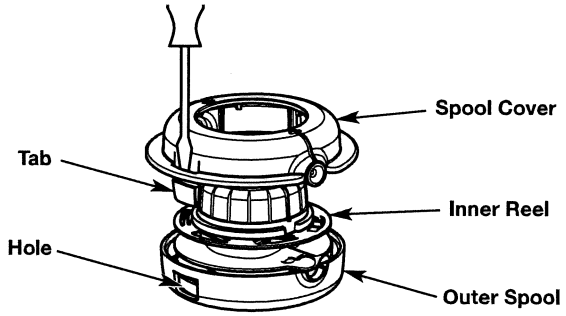

Fig. 23

CHECKING THE OIL LEVEL

WARNING: Check the oil level before each use. The importance of maintaining the proper oil level cannot be overemphasized.

1. Stop the engine and allow it to cool.
2. **Set the unit on a flat, level surface**, such as a workbench or table. The cutting head shield should hang over the edge so that the engine is level (Fig. 24).

NOTE: Failure to keep the engine level may result in oil overfill.

3. Clean the area around the oil fill plug (Fig. 25) to prevent debris from entering the oil fill hole (Fig. 25).
4. Unscrew the oil fill plug.
5. Look into the oil fill hole; use a flashlight if necessary. **The oil level should just touch the bottom thread of the oil fill hole** (Fig. 26).
   - If the oil level is too low, add a small amount of oil to the oil fill hole until the oil is at the correct level.

WARNING: DO NOT overfill the crankcase. OVERFILLING THE CRANKCASE MAY CAUSE SERIOUS PERSONAL INJURY.

   - If the oil level is too high, tip the unit and drain the excess oil into an appropriate container (Fig. 27).
6. Wipe up any oil that may have spilled.
7. Make sure the O-ring is in place on the oil fill plug (Fig. 25).
8. Reinstall the oil fill plug.

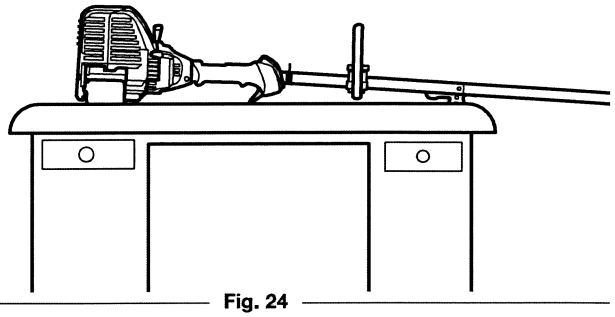

Fig. 24

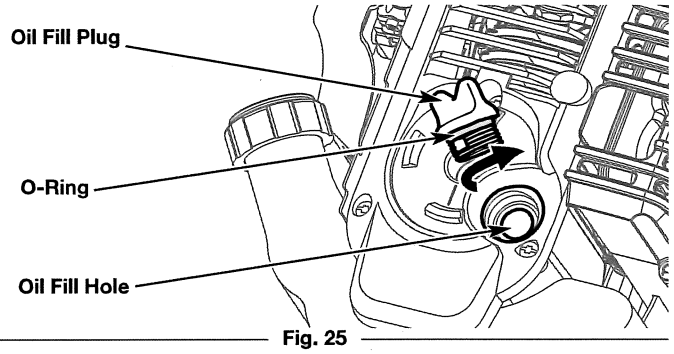

Fig. 25

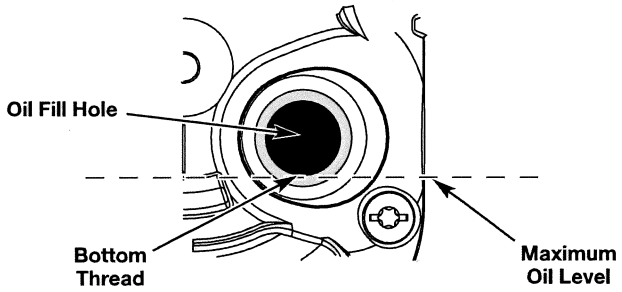

Fig. 26

CHANGING THE OIL

Change the oil while the engine is still warm. The oil will flow freely and carry away more impurities.

1. Clean the area around the oil fill plug (Fig. 25) to prevent debris from entering the oil fill hole.
2. Unscrew the oil fill plug.
3. Tip the unit vertically to pour the oil out of the oil fill hole and into a container (Fig. 27). Allow ample time for complete drainage.

NOTE: Dispose of the old oil according to federal, state and local regulations.

4. Wipe up any oil that may have spilled.
5. Pour 3.04 fl.oz. (90 ml) of SAE 30 oil into the oil fill hole (Fig. 25).

WARNING: DO NOT overfill the crankcase. OVERFILLING THE CRANKCASE MAY CAUSE SERIOUS PERSONAL INJURY. Refer to *Checking the Oil Level.*

6. Wipe up any oil that may have spilled.
7. Make sure the O-ring is in place on the oil fill plug (Fig. 25).
8. Reinstall the oil fill plug.

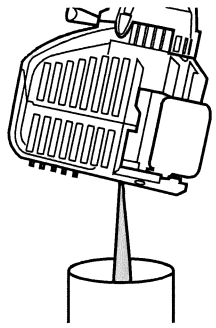

Fig. 27

MAINTAINING THE AIR FILTER

Failure to maintain the air filter can result in poor performance or can cause permanent damage to the engine. Engine failure due to improper air filter maintenance is not covered by the product warranty.

Cleaning the Air Filter

1. Open the air filter cover: press in the lock tab and swing the air filter cover up (Fig. 28).
2. Remove the air filter from the air filter housing (Fig. 28).
3. Wash the air filter in detergent and water. Rinse the air filter thoroughly and allow it to dry.
4. Lightly coat the air filter with clean SAE 30 oil.
5. Squeeze the air filter to spread and remove excess oil.
6. Reinstall the air filter in the air filter housing (Fig. 28).

NOTE: Operating the unit without the air filter and air filter cover will VOID the warranty.

7. Close the air filter cover: insert the tabs on the air filter housing into the slots on the air filter cover. Swing the air filter cover down and press it closed until the lock tab snaps into place (Fig. 28).

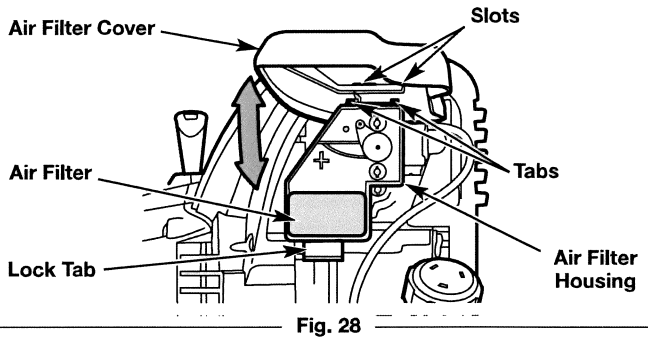

Fig. 28

ADJUSTING THE IDLE SPEED

WARNING: The cutting head may spin during idle speed adjustments. Wear protective clothing and observe all safety instructions to prevent serious personal injury.

If the engine will not idle properly:

1. Start the engine. Refer to *Starting and Stopping*.
2. Release the throttle control and let the engine idle.
   - If the engine stops, increase the idle speed. Use a small Phillips screwdriver to turn the idle speed screw clockwise, 1/8 of a turn at a time, until the engine idles smoothly (Fig. 29).
   - If the cutting head spins when the engine idles, reduce the idle speed. Turn the idle speed screw counterclockwise, 1/8 of a turn at a time, until the cutting head stops moving (Fig. 29).

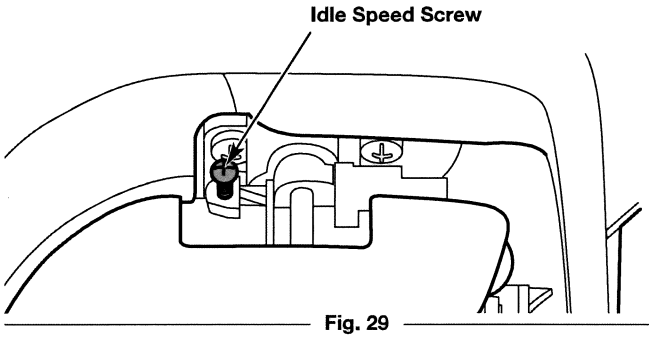

Fig. 29

MAINTAINING THE SPARK PLUG

1. Stop the engine and allow it to cool. Grasp the spark plug boot firmly and pull it from the spark plug.
2. Clean around the spark plug. Remove the spark plug from the cylinder head with a 5/8-inch socket, turning counterclockwise.

WARNING: Do not sand blast, scrape or clean spark plug electrodes. Grit in the engine could damage the cylinder.

3. Inspect the spark plug. If the spark plug is cracked, fouled or dirty, replace it with replacement part **#794-00082**, a **Champion RDZ4H** or an equivalent spark plug.
4. Use a feeler gauge to set the air gap at **0.025 in. (0.635 mm)** (Fig. 30).
5. Install the spark plug in the cylinder head. Tighten the spark plug with a 5/8-inch socket, turning it clockwise until snug.

NOTE: If using a torque wrench, torque to:

110-120 in.•lb. (12.3-13.5 N•m). Do not over tighten.

6. Reattach the spark plug boot.

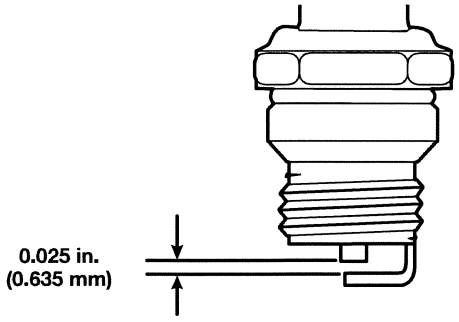

Fig. 30

CLEANING AND STORAGE

CLEANING

WARNING: To avoid serious personal injury, always stop the engine and allow it to cool before cleaning or maintaining the unit.

Use a small brush to clean the outside of the unit. Do not use strong detergents. Household cleaners that contain aromatic oils such as pine and lemon, and solvents such as kerosene, can damage plastic. Wipe off any moisture with a soft cloth.

STORAGE

- Never store a fueled unit where fumes may reach an open flame or spark.
- Allow the engine to cool before storing.
- Lock up the unit to prevent unauthorized use or damage.
- Store the unit in a dry, well-ventilated area.
- Store the unit out of the reach of children.
- To suspend the attachment from a hook, install the hanger cap onto the attachment. Make sure the release button is securely locked into one of the holes on the hanger cap.

Short-term Storage (1-2 weeks)

1. Store the unit in a horizontal position. If this is not possible, store the unit vertically with the engine at the top.

Long-term Storage

1. Remove the fuel cap, tip the unit and drain the fuel into an approved container. Reinstall the fuel cap.
2. Start the engine and allow it to run until it stalls. This ensures that all fuel has been drained from the carburetor.
3. Allow the engine to cool. Remove the spark plug and put 5 drops of any high-quality motor oil into the cylinder. Pull the starter rope slowly to distribute the oil. Reinstall the spark plug.
4. Thoroughly clean the unit and inspect it for any loose or damaged parts. Repair or replace damaged parts and tighten loose screws, nuts or bolts.

Preparing the Unit for Use after Long-term Storage

1. Remove the spark plug. Tip the unit and drain all of the oil from the cylinder into an approved container. Reinstall the spark plug.
2. Change the oil. Refer to *Changing the Oil*.

NOTE: Do not use fuel that has been stored for more than 30 days. Dispose of old fuel and oil according to federal, state and local regulations.