

CTS MS230, MS250

CTS Carburetor Instruction Manual

For STIHL MS230, MS250 Chainsaws (Replaces ZAMA C1Q-S84/S85)

1. INTRODUCTION

1.1 Product Overview

This manual provides essential information for the installation, operation, and maintenance of your new CTS Carburetor. This carburetor is a high-quality replacement part designed to restore optimal performance to compatible chainsaw models.

1.2 Compatibility

This CTS Carburetor is specifically designed to fit the following STIHL chainsaw models:

- STIHL 021
- STIHL 023
- STIHL 025
- STIHL MS230
- STIHL MS250

It serves as a direct replacement for ZAMA carburetor models C1Q-S84 and C1Q-S85. Always verify your chainsaw model and compare the new carburetor with your original part before installation to ensure proper fitment.



Figure 1.1: Top-down view of the CTS Carburetor.

2. SAFETY INFORMATION

Always prioritize safety when working with power tools and fuel systems. Failure to follow safety instructions can result in serious injury or property damage.

- **Read Chainsaw Manual:** Refer to your STIHL chainsaw's original instruction manual for specific safety guidelines and procedures.
- **Eye Protection:** Always wear appropriate eye protection (safety glasses or goggles) when working on your chainsaw.
- **Gloves:** Wear protective gloves to prevent cuts, scrapes, and contact with fuel.
- **Ventilation:** Work in a well-ventilated area, especially when handling gasoline.
- **Fuel Handling:** Handle gasoline with extreme care. Store fuel in approved containers away from ignition sources. Do not smoke while refueling or working on the fuel system.
- **Engine Off:** Ensure the chainsaw engine is completely off and cool before performing any maintenance or installation. Disconnect the spark plug wire to prevent accidental starting.
- **Professional Assistance:** If you are unsure about any installation or adjustment procedures, consult a qualified service technician.

3. PACKAGE CONTENTS

Upon opening the package, ensure all components are present and undamaged. The package should contain:

- 1 x CTS Carburetor (for STIHL MS230 MS250)

If any items are missing or damaged, contact your retailer immediately.

4. SETUP AND INSTALLATION

Replacing a carburetor requires careful attention to detail. Follow these general steps. Specific procedures may vary slightly depending on your chainsaw model. Refer to your chainsaw's service manual for detailed instructions.

4.1 Pre-Installation Checks

1. Ensure the chainsaw is turned off and the engine is cool.
2. Disconnect the spark plug wire to prevent accidental starting.
3. Gather necessary tools (screwdrivers, wrenches, pliers, etc.).
4. Have a clean workspace and a container to catch any spilled fuel.

4.2 Removal of Old Carburetor

1. Remove the air filter cover and air filter.
2. Carefully disconnect the fuel lines from the carburetor. Note their positions for reinstallation.
3. Disconnect the throttle linkage and choke rod from the carburetor.
4. Unscrew the mounting bolts or nuts that secure the carburetor to the engine intake.
5. Gently remove the old carburetor. Inspect the intake manifold and gaskets for any damage. Replace gaskets if necessary.



Figure 4.1: Side view of the carburetor, showing the throttle linkage attachment point.

4.3 Installation of New Carburetor

1. Position the new CTS Carburetor onto the intake manifold, ensuring any new gaskets are correctly seated.
2. Secure the carburetor with the mounting bolts or nuts, tightening them evenly. Do not overtighten.
3. Reconnect the throttle linkage and choke rod. Ensure they operate smoothly without binding.
4. Reconnect the fuel lines to their correct ports on the carburetor. Double-check for secure connections to prevent fuel leaks.
5. Reinstall the air filter and air filter cover.
6. Reconnect the spark plug wire.



Figure 4.2: Front view of the carburetor, highlighting potential adjustment screws.



Figure 4.3: Side view of the carburetor, showing the fuel inlet connection.

5. OPERATING INSTRUCTIONS

After installation, the chainsaw should be ready for operation. This carburetor is typically pre-tuned for standard operation, but minor adjustments may be necessary.

5.1 Initial Start-up

1. Fill the fuel tank with the correct fuel mixture as specified in your chainsaw's manual.
2. Prime the carburetor if your chainsaw model has a primer bulb.
3. Engage the choke and attempt to start the chainsaw according to your model's starting procedure.
4. Once the engine fires, disengage the choke and allow the engine to warm up for a few minutes.

5.2 Carburetor Adjustment (If Necessary)

Most replacement carburetors are factory-set for optimal performance. However, if your chainsaw exhibits poor idling, hesitation, or lack of power, minor adjustments may be required. **Note:** Some carburetors may not have external adjustment screws or may have limited adjustment capabilities.

- **Idle Speed (T-screw):** Adjusts the engine's idle speed. Turn clockwise to increase idle, counter-clockwise to decrease.
- **Low Speed Mixture (L-screw):** Controls the fuel-air mixture at low engine speeds. Adjust in small increments (1/8 turn) to achieve smooth acceleration and stable idle.
- **High Speed Mixture (H-screw):** Controls the fuel-air mixture at high engine speeds. Adjust in small increments to achieve maximum power without bogging down. **Caution:** Running too lean (H-screw turned too far in) can cause engine damage.

Always make adjustments with the engine running and warmed up. If you are unfamiliar with carburetor tuning, it is recommended to seek professional assistance.

6. MAINTENANCE

Regular maintenance ensures the longevity and reliable operation of your carburetor and chainsaw.

- **Fuel Quality:** Always use fresh, high-quality fuel mixed with the correct ratio of 2-stroke oil as specified by STIHL. Stale or improperly mixed fuel can cause carburetor issues.
- **Fuel Filter:** Periodically inspect and replace the fuel filter in the fuel tank. A clogged fuel filter can restrict fuel flow to the carburetor.
- **Air Filter:** Keep the air filter clean. A dirty air filter can restrict airflow, leading to a rich fuel mixture and poor engine performance.

- **Storage:** Before long-term storage, drain the fuel tank and run the engine until it stops to clear the carburetor of fuel. This prevents fuel deposits from forming and clogging internal passages. Alternatively, use a fuel stabilizer.

7. TROUBLESHOOTING

If your chainsaw is not performing correctly after carburetor replacement, consider the following common issues and solutions:

Problem	Possible Cause	Solution
Engine won't start	No fuel, clogged fuel filter, incorrect choke setting, spark plug issue, fuel lines reversed.	Check fuel level and mixture. Replace fuel filter. Verify choke operation. Inspect spark plug. Ensure fuel lines are connected correctly.
Engine starts but dies	Incorrect idle speed, air leak, fuel delivery issue, carburetor adjustment.	Adjust idle speed (T-screw). Check for loose connections or damaged gaskets. Verify fuel flow. Adjust L-screw slightly.
Lack of power / Engine bogs down	Incorrect high-speed mixture, dirty air filter, restricted exhaust.	Adjust H-screw (enrich slightly). Clean or replace air filter. Check exhaust for carbon buildup.
Fuel leaks	Loose fuel line connections, damaged fuel lines, faulty carburetor gasket.	Tighten fuel line clamps. Replace damaged fuel lines. Inspect and replace carburetor gaskets.

If troubleshooting steps do not resolve the issue, it is recommended to consult a professional chainsaw technician.

8. SPECIFICATIONS

Key specifications for the CTS Carburetor:

- **Brand:** CTS
- **Fuel Type:** Gasoline
- **Product Dimensions (D x W x H):** 4.83" x 7.87" x 5.59"
- **Item Weight:** 3.53 Ounces
- **Exterior Finish:** Aluminum
- **UPC:** 667673501199
- **Item Part Number:** 0667673501199

9. PRODUCT VIDEO

Watch this video for a detailed view of the CTS Carburetor:

Your browser does not support the video tag.

Video 9.1: A 15-second rotating view of the CTS Carburetor, showcasing its various angles and components.

10. WARRANTY AND SUPPORT

For warranty information or technical support regarding your CTS Carburetor, please refer to the documentation provided with your purchase or contact the seller directly through the platform where the item was purchased. Keep your proof of purchase for any warranty claims.

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