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SouthMarine MC-CA-8516M

SouthMarine Carburetor Instruction Manual

For Mercury Mariner 2-Stroke 9.9HP & 15HP Outboard Motors

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your SouthMarine carburetor. Please read these instructions thoroughly before attempting any procedures to ensure safe and efficient use of your outboard motor.

Safety Precautions:

- Always disconnect the battery before performing any maintenance or installation.
- Ensure proper ventilation when working with fuel.
- Wear appropriate personal protective equipment (PPE) such as gloves and eye protection.
- If you are unsure about any step, consult a qualified marine mechanic.

2. Product Overview

The SouthMarine carburetor is a replacement component designed to regulate the air-fuel mixture for optimal engine performance in compatible Mercury Mariner 2-Stroke outboard motors. This unit is engineered for reliable operation and direct fitment.



Figure 2.1: Front view of the SouthMarine carburetor, showing the main body and fuel inlet.



Figure 2.2: Side view of the SouthMarine carburetor, highlighting the throttle linkage and adjustment screws.

3. Compatibility

This carburetor is compatible with the following Mercury Mariner 2-Stroke outboard motor models:

- 9.9HP (9.9 D M)
- 15HP (15C)

It replaces OEM Carburetor Assembly Part Numbers:

- 1383-8806M
- 1383-8516M
- 1383-9513M
- 1383-9513T
- 1383-8024M

To confirm compatibility, please verify your engine's serial number or existing part number against the list above.

4. Installation

The following steps provide a general guide for carburetor replacement. Specific procedures may vary based on your outboard motor model. Always refer to your engine's service manual for detailed instructions.

1. **Preparation:** Ensure the engine is off and cooled. Disconnect the fuel line and battery.
2. **Remove Airbox/Cover:** Access the existing carburetor by removing any necessary engine covers or airbox components.
3. **Disconnect Linkages:** Carefully disconnect the throttle and choke linkages from the old carburetor. Note their positions for reassembly.
4. **Remove Fuel Lines:** Disconnect all fuel lines from the carburetor. Be prepared for minor fuel spills.
5. **Unbolt Carburetor:** Remove the mounting bolts or nuts securing the carburetor to the intake manifold.
6. **Install New Carburetor:** Place the new SouthMarine carburetor onto the intake manifold, ensuring new gaskets are used. Secure with mounting bolts/nuts, tightening to manufacturer specifications.
7. **Reconnect Components:** Reattach fuel lines, throttle, and choke linkages. Double-check all connections for security.
8. **Initial Adjustments:** Perform initial idle speed and mixture screw adjustments as per your engine's service manual.
9. **Test Run:** Reconnect the battery and fuel line. Start the engine in a well-ventilated area or in water (if applicable) and check for proper operation, leaks, and smooth idling.

Warning:
Improper installation can lead to engine damage or unsafe operating conditions. If you lack experience with marine engine repair, it is highly recommended to seek professional assistance.

Your browser does not support the video tag.

Video 4.1: A detailed view of a carburetor assembly, demonstrating its various components and potential points of connection. This video can assist in understanding the physical aspects during installation.

5. Operation

The carburetor's primary function is to mix air and fuel in the correct ratio for combustion. Once installed and adjusted, the carburetor operates automatically based on engine demand. Key operational aspects include:

- **Choke Function:** For cold starts, the choke enriches the fuel mixture. Engage the choke as needed and disengage once the engine warms up.
- **Throttle Control:** The throttle lever controls the amount of air-fuel mixture entering the engine, thereby regulating engine speed.
- **Idle Speed:** The carburetor maintains a stable engine speed when the throttle is closed. Proper idle adjustment is crucial for smooth operation.

Always ensure your fuel system is clean and free of contaminants for optimal carburetor performance.

6. Maintenance

Regular maintenance of your carburetor is essential for prolonging its lifespan and ensuring consistent engine performance. Recommended maintenance includes:

- **Fuel System Inspection:** Periodically inspect fuel lines, filters, and the fuel tank for debris or contamination.
- **Carburetor Cleaning:** If performance issues arise, the carburetor may require cleaning. This involves disassembling the unit, cleaning jets and passages with carburetor cleaner, and replacing gaskets.
- **Float Level Check:** Ensure the float level is set correctly to prevent fuel starvation or overflow.
- **Linkage Lubrication:** Lubricate throttle and choke linkages to ensure smooth operation.

Note:
Use only marine-grade fuel and fuel stabilizers, especially during storage, to prevent fuel degradation and carburetor clogging.

7. Troubleshooting

This section addresses common issues that may arise with your carburetor. For complex problems, consult a professional marine mechanic.

Problem	Possible Cause	Solution
Engine won't start	Clogged fuel filter, no fuel, incorrect choke setting, fouled spark plugs, clogged carburetor jets.	Check fuel supply, clean/replace fuel filter, adjust choke, inspect/replace spark plugs, clean carburetor.
Rough idling or stalling	Incorrect idle mixture, clogged idle jet, vacuum leak, improper float level.	Adjust idle mixture, clean idle jet, check for vacuum leaks, adjust float level.
Poor acceleration or loss of power	Clogged main jet, restricted fuel flow, incorrect timing.	Clean main jet, check fuel lines and filter, verify engine timing.
Fuel leaks	Damaged gaskets, loose fittings, cracked fuel lines, stuck float.	Replace gaskets, tighten fittings, replace fuel lines, inspect/repair float.

8. Specifications

- **Brand:** SouthMarine
- **Model Number:** MC-CA-8516M
- **Replaces OEM Part Numbers:** 1383-8806M, 1383-8516M, 1383-9513M, 1383-9513T, 1383-8024M
- **Engine Position:** Outboard
- **Compatible Engine Types:** Mercury Mariner 2-Stroke 9.9HP, 15HP
- **Item Weight:** 1.1 pounds
- **Package Dimensions:** 5.8 x 4.6 x 3.6 inches

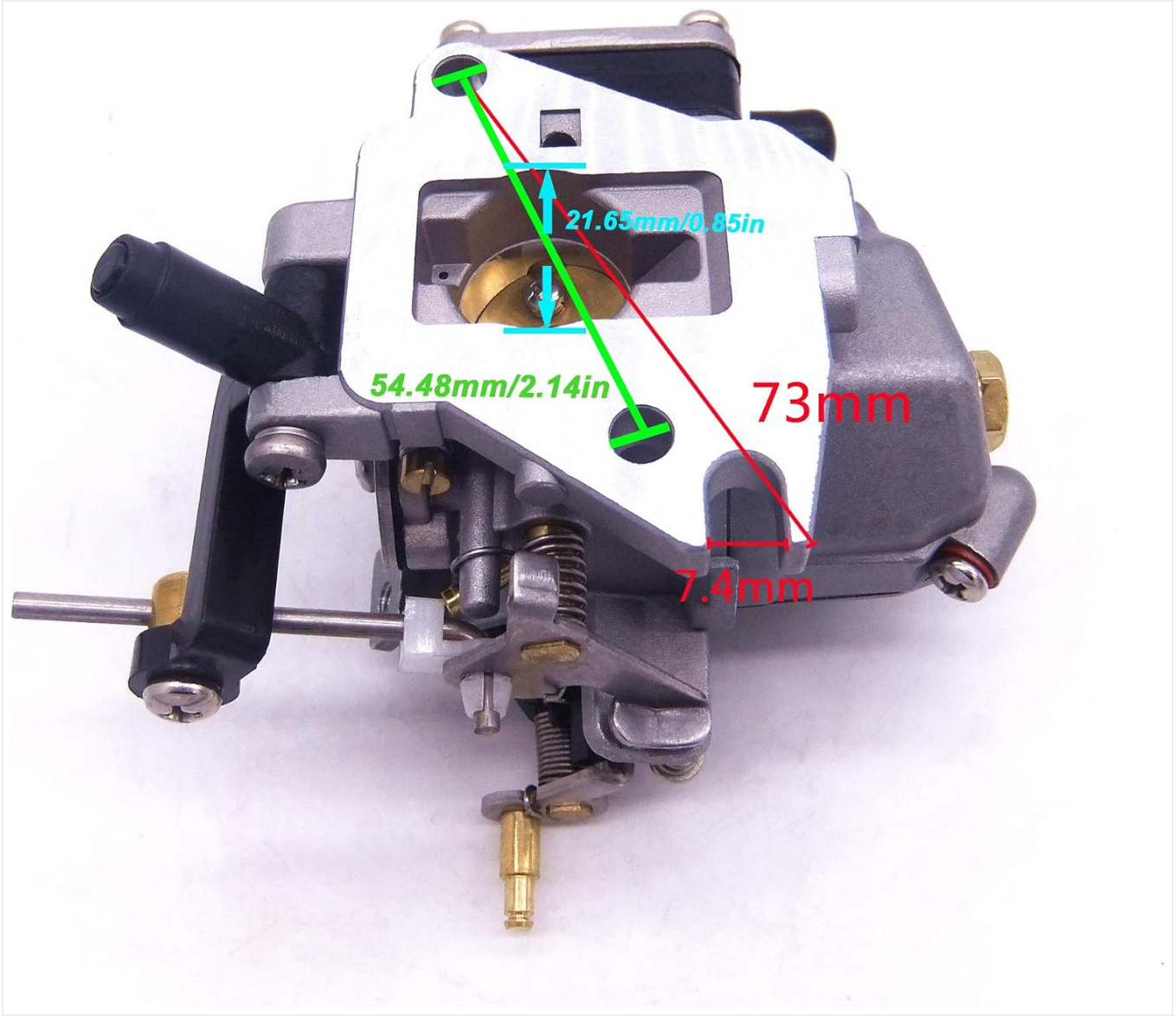


Figure 8.1: Carburetor dimensions, including 54.48mm (2.14in) and 21.65mm (0.85in) measurements.

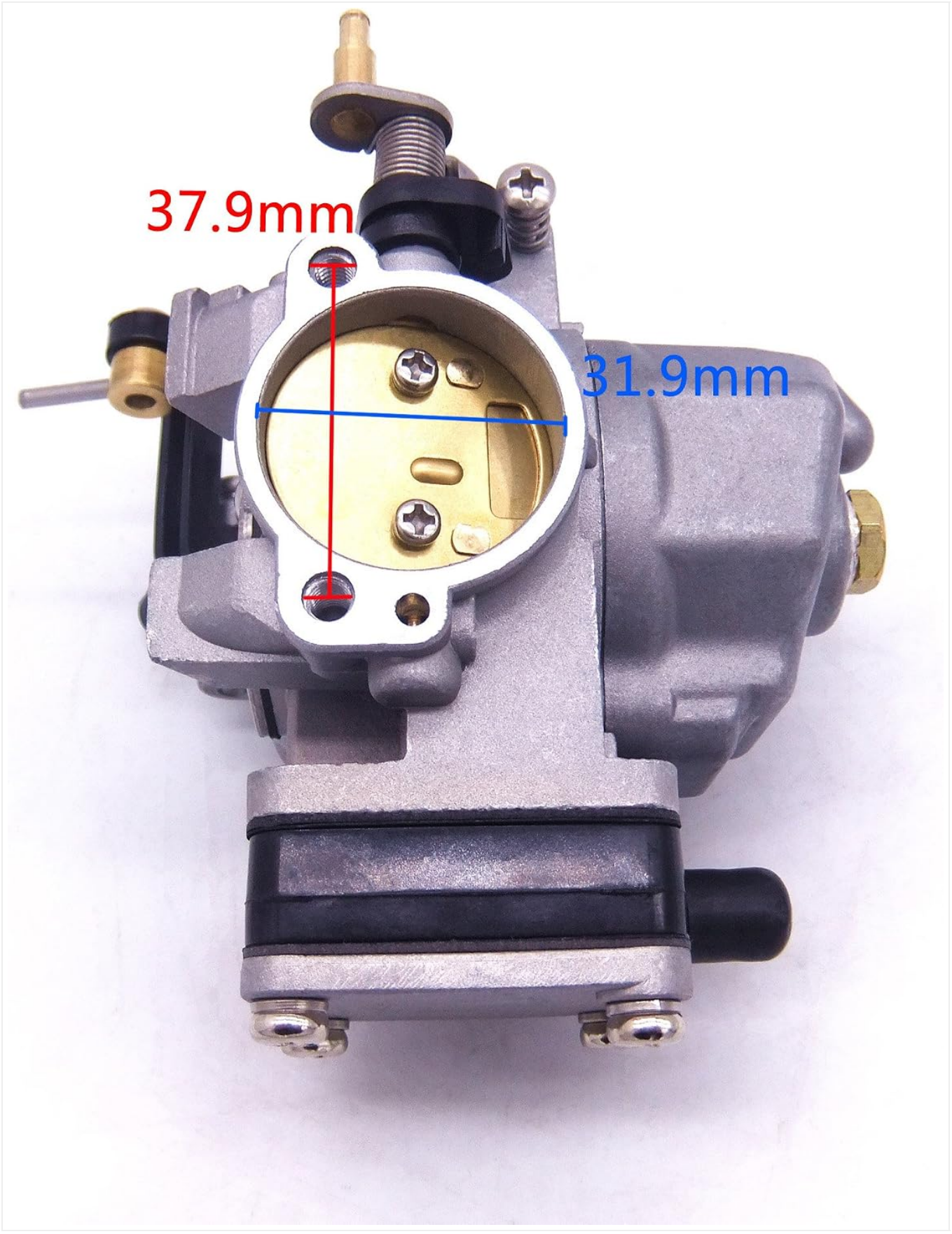


Figure 8.2: Additional carburetor dimensions, showing 37.9mm and 31.9mm measurements.

9. Warranty and Support

For warranty information or technical support, please contact SouthMarine customer service. Keep your purchase receipt and product model number handy when contacting support.
Manufacturer: SouthMarine

For further assistance, refer to the SouthMarine Store on Amazon.

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