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› Hipa BP42 Carburetor Instruction Manual for Ryobi Backpack Leaf Blowers

Hipa BP42

Hipa BP42 Carburetor Instruction Manual

For Ryobi Backpack Leaf Blower Models: RY08420, RY08420A, RY42WB, RY42BP EMC

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your Hipa BP42 Carburetor. This replacement carburetor is designed to be compatible with specific Ryobi backpack leaf blower models, ensuring reliable performance.

Product Compatibility

This Hipa BP42 Carburetor is compatible with the following Ryobi backpack leaf blower models:

- Ryobi RY08420
- Ryobi RY08420A
- Ryobi RY42WB
- Ryobi RY42BP EMC

It replaces manufacturer part numbers: 308054079, 308054093, and WT-1086. The included cleaner replaces part number 900777005.

2. PACKAGE CONTENTS

The Hipa BP42 Carburetor kit includes the following components:



Image: All components included in the HiPa BP42 Carburetor kit, laid out for inspection.

- HiPa 308054093 Carburetor x1
- Air Filter x1
- Primer Pump x1
- Fuel Filter x1
- Fuel Line (2 feet) x2
- Spark Plug x1
- Gasket x2

ALL-IN-ONE KIT

Your Go-To for Repair and Maintenance



Image: Visual representation of the comprehensive kit, highlighting its utility for repair and maintenance.

3. INSTALLATION

The Hipa BP42 Carburetor is designed for straightforward replacement. It arrives factory-tuned, generally requiring no further adjustment for initial operation.

ARRIVES READY TO RUN



Factory precisely tuned
No adjustment needed



Image: The Hipa BP42 Carburetor shown with a Ryobi leaf blower in the background, indicating it is ready for installation and use without complex tuning.

General Installation Steps:

1. **Safety First:** Ensure the leaf blower engine is off and cool. Disconnect the spark plug wire to prevent accidental starting.
2. **Access Carburetor:** Remove any covers or components necessary to access the existing carburetor.
3. **Disconnect Components:** Carefully disconnect the fuel lines, throttle linkage, and any electrical connections from the old carburetor. Note their positions for reassembly.
4. **Remove Old Carburetor:** Unbolt and remove the old carburetor and gaskets.
5. **Install New Components:**
 - Replace the old air filter with the new one provided.
 - Replace the fuel filter and fuel lines.
 - Replace the spark plug.
 - Install the new gaskets.

6. **Mount New Carburetor:** Install the Hipa BP42 Carburetor, ensuring proper alignment with the mounting holes.
7. **Reconnect Components:** Reattach the fuel lines, throttle linkage, and electrical connections to the new carburetor.
8. **Final Checks:** Verify all connections are secure and there are no kinks in the fuel lines.

For detailed, model-specific installation instructions, it is recommended to consult your Ryobi leaf blower's service manual or search for instructional videos online relevant to your specific model.

4. OPERATION

After proper installation, the Hipa BP42 Carburetor is designed to provide quick starts and stable engine performance.



Image: Diagram illustrating the performance benefits of the Hipa BP42 Carburetor, including quick starting, smooth throttle response, stable RPM, and low fuel consumption.

Starting Procedure (General):

1. **Prime the Engine:** Press the primer bulb several times until fuel is visible in the return line or the bulb is full.

2. **Set Choke:** Move the choke lever to the "Full Choke" position.
3. **Start Engine:** Pull the starter rope firmly and steadily until the engine attempts to start or "pops."
4. **Adjust Choke:** Once the engine "pops" or starts briefly, move the choke lever to the "Half Choke" or "Run" position (consult your blower's manual for exact positions).
5. **Restart Engine:** Pull the starter rope again until the engine starts and runs smoothly.
6. **Warm-up:** Allow the engine to warm up for a few moments before applying full throttle.

The carburetor is pre-tuned for optimal performance. However, if minor adjustments are needed, refer to the troubleshooting section or consult a qualified technician.

5. MAINTENANCE

Regular maintenance of your leaf blower's fuel and air systems is crucial for longevity and performance. The Hipa BP42 kit provides key components for this.

Key Maintenance Points:

- **Air Filter:** Regularly inspect and clean the air filter. Replace it with the new air filter provided in the kit if it is dirty or damaged. A clean air filter ensures proper air-fuel mixture and prevents engine wear.
- **Fuel Filter:** The fuel filter prevents contaminants from reaching the carburetor. Replace it periodically, especially when replacing the carburetor or fuel lines.
- **Fuel Lines:** Inspect fuel lines for cracks, hardening, or leaks. Replace them as needed to prevent fuel delivery issues and potential fire hazards. The kit includes new fuel lines.
- **Spark Plug:** A worn or fouled spark plug can cause starting difficulties and poor engine performance. Replace the spark plug with the new one provided in the kit according to your blower's maintenance schedule.

Always use fresh, properly mixed fuel (if applicable to your blower model) to prevent carburetor issues.

6. TROUBLESHOOTING

This section addresses common issues that may arise with your leaf blower's engine, particularly after carburetor replacement.

COMMON ENGINE PROBLEMS

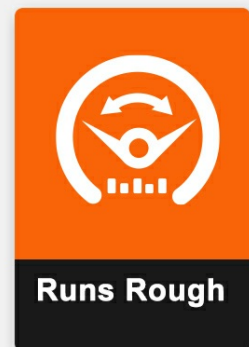
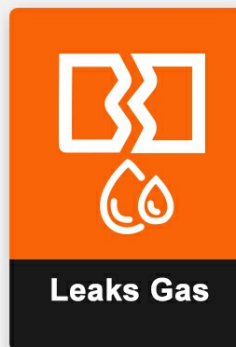
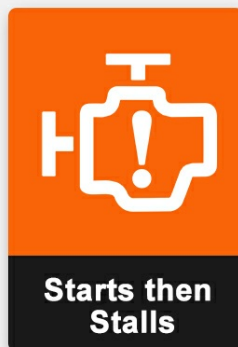
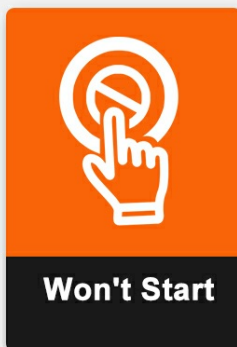


Image: Visual guide to common engine problems, including "Won't Start," "Starts then Stalls," "Leaks Gas," and "Runs Rough."

Troubleshooting Guide

Problem	Possible Cause	Solution
Engine Won't Start	• Incorrect starting procedure • Fouled or incorrect spark plug gap • No fuel or stale fuel • Clogged fuel filter or lines • Air filter clogged	• Follow starting procedure (Section 4). • Check and replace spark plug (kit included). • Ensure fresh fuel. • Replace fuel filter and lines (kit included). • Replace air filter (kit included).
Engine Starts Then Stalls	• Improper choke setting • Clogged fuel filter or lines • Air leak around carburetor • Minor carburetor adjustment needed	• Adjust choke to "Run" position after initial start. • Replace fuel filter and lines. • Check gaskets and mounting for proper seal. • Consult a technician for minor idle speed or mixture adjustments if necessary.
Engine Runs Rough / Lacks Power	• Clogged air filter • Fouled spark plug • Stale fuel • Minor carburetor adjustment needed	• Replace air filter. • Replace spark plug. • Use fresh fuel. • The carburetor is factory-tuned; however, if performance issues persist, professional adjustment of the idle speed, high-speed, or low-speed screws may be required.
Fuel Leaks	• Loose fuel line connections • Damaged fuel lines • Improperly seated gaskets	• Tighten all fuel line clamps. • Replace damaged fuel lines (kit included). • Ensure gaskets are correctly installed and carburetor is securely mounted.

TUNABLE AIR-FUEL RATIO

Making it More Efficient for Specific Tasks or Operating Conditions

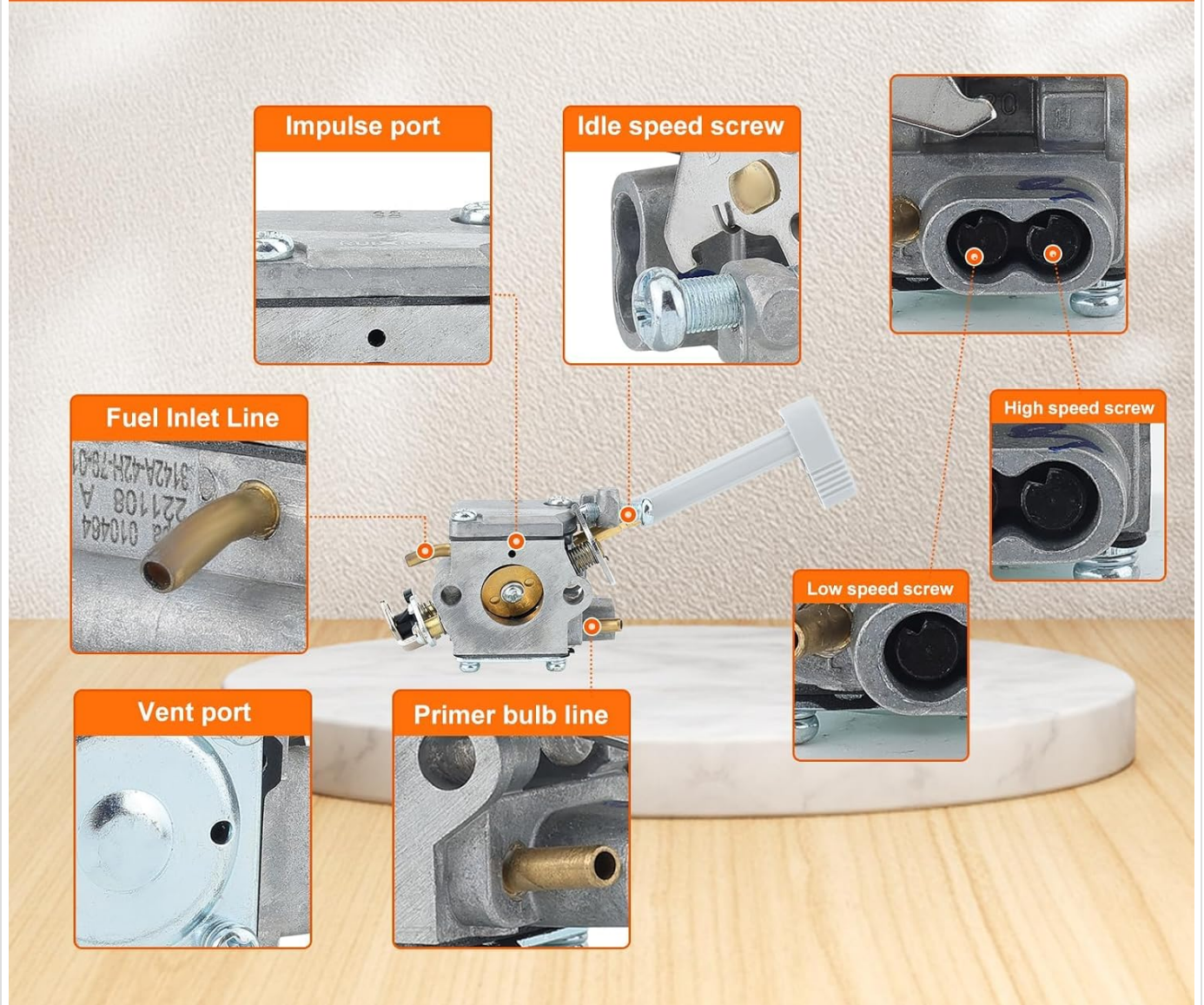


Image: Detailed view of the carburetor with key adjustment points labeled, including impulse port, idle speed screw, fuel inlet line, vent port, primer bulb line, high speed screw, and low speed screw.

Note: While the carburetor is factory-tuned, advanced adjustments to the high-speed and low-speed mixture screws should only be performed by experienced individuals or a qualified service technician. Incorrect adjustments can lead to engine damage.

7. SPECIFICATIONS

Key dimensions and specifications for the Hipa BP42 Carburetor:

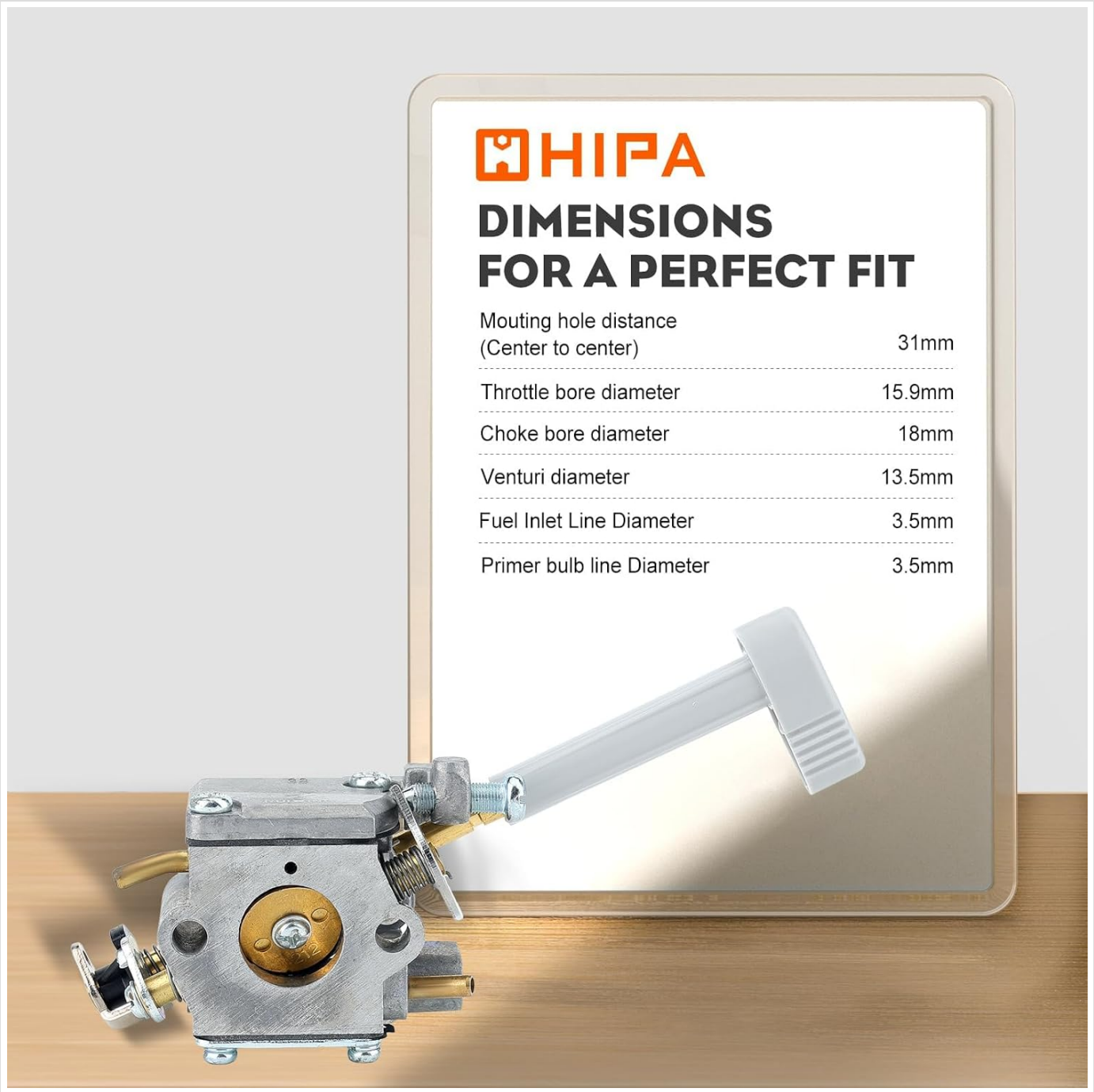


Image: Diagram showing the critical dimensions of the Hipa BP42 Carburetor for proper fitment.

Hipa BP42 Carburetor Specifications

Measurement	Value
Mounting Hole Distance (Center to Center)	31mm
Throttle Bore Diameter	15.9mm
Choke Bore Diameter	18mm
Venturi Diameter	13.5mm
Fuel Inlet Line Diameter	3.5mm
Primer Bulb Line Diameter	3.5mm

General Product Information:

- **Package Dimensions:** 5.79 x 4.37 x 3.03 inches
- **Item Weight:** 9.6 ounces
- **Manufacturer:** HIPA
- **Item Model Number:** 308054093 900777005 308054079

8. WARRANTY AND SUPPORT

For information regarding product warranty, returns, or technical support, please contact Hipa directly through their official channels or the retailer from whom the product was purchased.

Ensure you have your purchase details and product model information available when contacting support.

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