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Milwaukee 22-20-0345

Milwaukee Brush Spring Assembly Instruction Manual

Model: 22-20-0345

INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of the Milwaukee Brush Spring Assembly, Model 22-20-0345. Please read these instructions carefully before attempting any installation or maintenance to ensure safety and optimal performance.

SAFETY INFORMATION

WARNING:

- Always disconnect the power tool from its power source before performing any maintenance, cleaning, or installation of parts.
- Wear appropriate personal protective equipment (PPE), such as safety glasses and gloves, during installation.
- Ensure the work area is well-lit and clear of obstructions.
- If you are unsure about any procedure, consult a qualified technician or the manufacturer's service center.

PRODUCT OVERVIEW

The Milwaukee Brush Spring Assembly (Model 22-20-0345) is a critical component designed for specific Milwaukee power tools. It ensures proper contact between the carbon brush and the commutator, which is essential for the motor's electrical function and efficient operation.



An image showing the Milwaukee Brush Spring Assembly, featuring a coiled spring and a brush holder component. This assembly is crucial for maintaining electrical contact within the power tool's motor.

SETUP AND INSTALLATION

This section outlines the general steps for replacing a brush spring assembly. Specific procedures may vary depending on the power tool model. Always refer to your tool's specific service manual for detailed instructions.

1. **Preparation:** Disconnect the power tool from its power source. Place the tool on a stable, clean surface.
2. **Access the Brush Holders:** Locate and remove the brush caps or access panels on the tool that cover the carbon brushes and spring assemblies. This may require a screwdriver or other appropriate tool.
3. **Remove Old Assembly:** Carefully remove the old brush and spring assembly. Note its orientation for correct reinstallation. The spring may be under tension, so exercise caution.
4. **Inspect Components:** Inspect the commutator for wear or damage. Clean any carbon dust from the brush housing.
5. **Install New Assembly:** Insert the new Milwaukee Brush Spring Assembly (Model 22-20-0345) into the brush holder. Ensure the brush slides freely and the spring applies adequate pressure to the brush.
6. **Secure Components:** Reinstall the brush caps or access panels securely.
7. **Test:** Briefly connect the tool to power and test its operation. Listen for unusual noises and observe for proper function.

OPERATING PRINCIPLES

The brush spring assembly plays a vital role in the electrical circuit of a universal motor found in many power tools. Its primary function is to maintain constant and optimal pressure on the carbon brush, ensuring continuous electrical contact with the rotating commutator. This consistent contact is crucial for efficient power transfer to the motor's armature, allowing the tool to operate effectively. A worn or faulty spring assembly can lead to intermittent contact, sparking, reduced power, or complete motor failure.

MAINTENANCE

Regular inspection of the brush spring assembly and associated components can extend the life of your power tool.

- **Inspection:** Periodically inspect the brush spring assembly for signs of wear, corrosion, or loss of tension. The spring should be firm and provide consistent pressure.
- **Cleaning:** When replacing brushes, clean out any carbon dust accumulation from the brush holders and around the commutator. Carbon dust can cause short circuits.
- **Replacement:** Replace the brush spring assembly if the spring appears weak, deformed, or if the brush holder component is damaged. It is often recommended to replace brush springs when replacing carbon brushes, as both components wear over time.

TROUBLESHOOTING

If your power tool is experiencing issues related to its motor, the brush spring assembly might be a contributing factor. Consider the following:

Symptom	Possible Cause (Brush Spring Assembly Related)	Solution
Intermittent power or tool cutting out	Weak or broken brush spring, poor brush contact	Inspect and replace brush spring assembly if necessary.
Excessive sparking at the commutator	Insufficient brush pressure from a weak spring	Replace brush spring assembly. Also check carbon brushes and commutator.
Reduced motor speed or power	Inconsistent brush contact due to worn spring	Replace brush spring assembly.

Note: These are common issues. Always consider other potential causes of tool malfunction and consult a professional if unsure.

SPECIFICATIONS

Model Number: 22-20-0345

Brand: Milwaukee

Part Type: Brush Spring Assembly

ASIN: B077ZDLHGS

Manufacturer: Milwaukee

Date First Available: December 7, 2017

WARRANTY AND SUPPORT

This Brush Spring Assembly is a replacement part. Warranty coverage for replacement parts typically falls under the warranty of the original power tool or is limited to defects in material and workmanship for a specific period from the date of purchase. Please refer to the warranty documentation provided with your original Milwaukee power tool or visit the official Milwaukee website for detailed warranty terms and conditions.

For technical support, service, or to locate authorized service centers, please visit the official Milwaukee

Tool website or contact their customer service department. Always provide the model number of your tool and the part number (22-20-0345) when seeking assistance.

Milwaukee Official Website: www.milwaukeetool.com