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Owigift 13AV60KG011

Owigift Starter Motor Replacement Manual

For 42" Troy-Bilt Bronco 13AV60KG011 Lawn Tractor with Kohler Courage Engine

INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your Owigift replacement starter motor. This starter motor is specifically designed for 42-inch Troy-Bilt Bronco 13AV60KG011 Lawn Tractors equipped with Kohler Courage Engines. Please read this manual thoroughly before attempting installation or operation to ensure proper function and safety.

SAFETY INFORMATION

Always prioritize safety when working with machinery and electrical components. Failure to follow these safety guidelines may result in injury or damage to equipment.

- **Disconnect Power:** Before beginning any installation or maintenance, ensure the lawn tractor's battery is disconnected. Remove the negative (-) battery cable first, then the positive (+) cable.
- **Wear Protective Gear:** Always wear appropriate personal protective equipment (PPE), including safety glasses and gloves, to protect against potential hazards.
- **Work in a Well-Ventilated Area:** Ensure adequate ventilation if working with fuels or other chemicals.
- **Secure the Tractor:** Park the lawn tractor on a level surface, engage the parking brake, and block the wheels to prevent accidental movement.
- **Avoid Hot Surfaces:** The engine and exhaust components can be extremely hot. Allow the engine to cool completely before working on it.
- **Handle Electrical Components Carefully:** Avoid touching live electrical terminals. Ensure all connections are secure and insulated after installation.

PACKAGE CONTENTS

Upon opening the package, verify that all components are present and undamaged.

- 1 x Owigift Replacement Starter Motor

- 1 x User Manual (this document)

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

COMPATIBILITY

This starter motor is a direct replacement for specific models. Please confirm your lawn tractor's model and engine type before installation.

- **Lawn Tractor Model:** Troy-Bilt Bronco 13AV60KG011 (42-inch deck)
- **Engine Type:** Kohler Courage Engine

Using this starter motor with incompatible models may lead to improper function or damage.

INSTALLATION (SETUP)

Follow these steps carefully to replace the starter motor. If you are unsure about any step, consult a qualified technician.

1. Preparation:

- Ensure the lawn tractor is turned off, the key is removed, and the parking brake is engaged.
- Disconnect the negative (-) battery cable first, then the positive (+) battery cable.
- Allow the engine to cool completely if it has been recently operated.

2. **Locate the Old Starter Motor:** The starter motor is typically located on the side of the engine, often near the flywheel.

3. **Disconnect Wiring:** Carefully disconnect all electrical wires connected to the old starter motor. Note their positions for re-connection.

4. **Remove Mounting Bolts:** Remove the bolts that secure the old starter motor to the engine block. Keep these bolts for re-use if they are in good condition, or use new ones if specified by the tractor's service manual.

5. **Remove Old Starter Motor:** Carefully pull the old starter motor away from the engine. Be mindful of any gears or shims.

6. **Inspect Mounting Area:** Clean any debris or corrosion from the mounting surface on the engine block.

7. **Install New Starter Motor:**



Image: Owigift Replacement Starter Motor. This image displays the main body of the starter motor, featuring its durable black casing and the metallic gold end cap where the electrical connections are made. A prominent hexagonal bolt is visible on the end cap, indicating a secure fastening point.

- Align the new Owigift starter motor with the mounting holes on the engine block. Ensure the pinion gear engages correctly with the flywheel.
 - Insert and hand-tighten the mounting bolts.
 - Tighten the mounting bolts securely using appropriate tools. Refer to your tractor's service manual for specific torque specifications if available.
8. **Reconnect Wiring:** Reconnect the electrical wires to the new starter motor. Ensure all connections are tight and secure.
9. **Reconnect Battery:** Reconnect the positive (+) battery cable first, then the negative (-) battery cable.
10. **Test Functionality:** Attempt to start the lawn tractor to verify the new starter motor is functioning correctly. Listen for proper engagement and cranking.

The starter motor is an integral part of your lawn tractor's starting system. Once installed, its operation is automatic when you turn the ignition key to the "Start" position.

- When the ignition key is turned to "Start," electrical current flows to the starter motor.
- The starter motor's pinion gear extends and engages with the engine's flywheel.
- The starter motor rotates the flywheel, cranking the engine until it starts.
- Once the engine starts, the pinion gear disengages from the flywheel, and the starter motor stops operating.

Ensure your battery is fully charged and all electrical connections are clean and secure for optimal starting performance.

MAINTENANCE

Proper maintenance can extend the life of your starter motor and ensure reliable performance.

- **Keep Connections Clean:** Periodically inspect the electrical connections to the starter motor and battery terminals. Clean any corrosion using a wire brush and battery terminal cleaner.
- **Check Wiring:** Ensure all wiring connected to the starter motor is intact, not frayed, and securely fastened.
- **Battery Health:** A weak battery can put excessive strain on the starter motor. Ensure your lawn tractor's battery is regularly checked and maintained.
- **Avoid Excessive Cranking:** Do not continuously crank the engine for extended periods if it fails to start. This can overheat and damage the starter motor. Allow the starter to cool between attempts.

TROUBLESHOOTING

If you experience issues with your starter motor, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Starter motor does not engage or click.	Dead or weak battery; Loose or corroded battery cables; Faulty ignition switch; Faulty solenoid; Wiring issue.	Charge or replace battery; Clean and tighten battery terminals and cables; Test ignition switch and solenoid; Inspect wiring for damage.
Starter motor cranks slowly.	Weak battery; Corroded battery cables; Engine oil too thick (cold weather); Internal starter motor issue.	Charge or replace battery; Clean and tighten battery terminals and cables; Use appropriate engine oil for temperature; If issues persist, starter motor may need replacement.
Starter motor spins but engine does not crank.	Damaged starter pinion gear; Damaged flywheel teeth; Bendix drive malfunction.	Inspect starter pinion gear and flywheel for damage; Replace starter motor if Bendix drive is faulty.
Grinding noise during starting.	Misalignment of starter motor; Damaged pinion gear or flywheel teeth.	Re-check starter motor mounting; Inspect gears for wear or damage.

If troubleshooting steps do not resolve the issue, it may indicate a more complex problem requiring professional diagnosis and repair.

SPECIFICATIONS

Key technical specifications for the Owigift Replacement Starter Motor:

- **Brand:** Owigift
- **Model Number:** 13AV60KG011 (Replacement Part)
- **Voltage:** 12 Volts (DC)
- **Wattage:** 1.1 KW
- **Material:** Bronco (referring to the compatible tractor model)
- **UPC:** 718997289031
- **Manufacturer:** Owigift

WARRANTY AND SUPPORT

This product is typically covered by a return policy that allows for refund or replacement within 30 days of purchase. For specific warranty details, return procedures, or technical support, please refer to the seller's policy on the platform where the product was purchased.

If you encounter any issues or have questions not covered in this manual, please contact the seller directly for assistance.

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