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› URQS /

› URQS Starter Motor Instruction Manual for Mustang Skid Steer Models 2060, 2070, 552, 960 with Isuzu 4JB1 Diesel Engine

URQS 2060, 2070, 552, 960, 4JB1

URQS Starter Motor Instruction Manual

For Mustang Skid Steer Models 2060, 2070, 552, 960 with Isuzu 4JB1 Diesel Engine

1. INTRODUCTION

This manual provides essential instructions for the safe and effective installation, operation, and maintenance of your new URQS Starter Motor. This starter is designed for specific Mustang Skid Steer models (2060, 2070, 552, 960) equipped with the Isuzu 4JB1 Diesel Engine. Please read this manual thoroughly before attempting any installation or operation to ensure proper function and to prevent damage or injury.

2. SAFETY INFORMATION

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

- **Disconnect Battery:** Always disconnect the vehicle's battery (negative terminal first) before beginning any work on the electrical system to prevent accidental starting or electrical shock.
- **Personal Protective Equipment (PPE):** Wear appropriate PPE, including safety glasses, gloves, and protective clothing.
- **Proper Tools:** Use only the correct tools for the job. Ensure tools are in good condition.
- **Ventilation:** Work in a well-ventilated area, especially when dealing with battery fumes.
- **Secure Vehicle:** Ensure the skid steer is on a stable, level surface with the parking brake engaged and wheels chocked.
- **Professional Assistance:** If you are unsure about any step, consult a qualified mechanic or technician.

3. PRODUCT OVERVIEW

The URQS Starter Motor is a critical component designed to initiate the combustion process in your diesel engine. It converts electrical energy from the battery into mechanical energy to crank the engine. This unit

is a direct replacement for the original starter in compatible Mustang Skid Steer models.



Figure 1: URQS Starter Motor. This image displays the starter motor from an angled perspective, highlighting its main body, solenoid, and the drive gear (bendix) at the front. The main body is silver-colored metal, with a gold-colored cylindrical solenoid attached to the top. Electrical terminals are visible near the solenoid.

3.1 Compatibility

This starter motor is compatible with the following models:

- Mustang Skid Steer 2060
- Mustang Skid Steer 2070
- Mustang Skid Steer 552
- Mustang Skid Steer 960
- Engines: Isuzu 4JB1 Diesel

Always verify the part number and specifications against your existing starter motor before installation.

4. SETUP AND INSTALLATION

The following steps outline the general procedure for replacing a starter motor. Specific vehicle configurations may vary. Refer to your skid steer's service manual for detailed instructions.

4.1 Tools Required (Typical)

- Socket wrench set
- Open-end wrenches
- Battery terminal cleaner
- Wire brush
- Dielectric grease (optional)

4.2 Installation Steps

1. **Prepare Vehicle:** Park the skid steer on a level surface, engage the parking brake, and chock the wheels. Allow the engine to cool completely.

2. **Disconnect Battery:** Locate the vehicle battery. Using an appropriate wrench, disconnect the negative (-) battery cable first, followed by the positive (+) cable. Secure the cables away from the battery terminals.
3. **Locate Old Starter:** Identify the existing starter motor on the engine. It is typically mounted to the engine block near the flywheel housing.
4. **Disconnect Wiring:** Carefully disconnect all electrical wiring from the old starter. Note the position of each wire for correct reinstallation. There will typically be a large battery cable and one or more smaller solenoid wires.
5. **Remove Mounting Bolts:** Remove the bolts securing the old starter motor to the engine block. Support the starter as you remove the last bolt to prevent it from falling.
6. **Remove Old Starter:** Carefully extract the old starter motor from its mounting position.
7. **Inspect Mounting Surface:** Clean the starter motor mounting surface on the engine block to ensure a flush fit for the new starter.
8. **Install New Starter:** Position the new URQS Starter Motor into place. Install the mounting bolts and tighten them to the manufacturer's specified torque (refer to your skid steer's service manual). Do not overtighten.
9. **Connect Wiring:** Reconnect all electrical wiring to the new starter motor. Ensure connections are clean and secure. Apply dielectric grease to terminals if desired for corrosion protection.
10. **Reconnect Battery:** Reconnect the positive (+) battery cable first, then the negative (-) battery cable. Ensure terminals are clean and tight.
11. **Final Check:** Double-check all connections and ensure no tools or debris are left in the engine compartment.

5. OPERATING INSTRUCTIONS

After successful installation, follow these steps to operate your engine:

1. **Pre-Start Checks:** Perform all routine pre-start checks as outlined in your skid steer's operator manual (e.g., fluid levels, safety interlocks).
2. **Ignition:** Turn the ignition key to the "START" position. The starter motor will engage and crank the engine.
3. **Release Key:** Once the engine starts, immediately release the ignition key, allowing it to return to the "RUN" position. Do not hold the key in the "START" position once the engine has fired, as this can damage the starter motor.
4. **Monitor:** Listen for any unusual noises during starting. If the engine does not start after a few seconds, release the key, wait for a short period (e.g., 30 seconds), and try again. Avoid prolonged cranking.

6. MAINTENANCE

The URQS Starter Motor is designed for durability and requires minimal maintenance. However, periodic checks can extend its lifespan and ensure reliable operation.

- **Battery Condition:** Ensure your vehicle's battery is in good condition and fully charged. A weak battery can overwork the starter.
- **Cable Connections:** Periodically inspect all battery and starter cable connections for corrosion and tightness. Clean any corrosion with a wire brush and battery terminal cleaner.

- **Mounting Security:** Check that the starter motor mounting bolts are secure.
- **Avoid Over-Cranking:** Do not continuously crank the engine for extended periods. This can cause the starter to overheat. If the engine does not start, allow the starter to cool down before attempting again.

7. TROUBLESHOOTING

If you experience issues with your starter motor, consult the following table for common problems and potential solutions.

Problem	Possible Cause	Solution
Starter does not engage or click	<ul style="list-style-type: none"> • Dead or weak battery • Loose or corroded battery cables • Faulty ignition switch • Faulty starter solenoid • Safety interlock engaged 	<ul style="list-style-type: none"> • Charge or replace battery • Clean and tighten battery and starter connections • Test ignition switch • Test solenoid (if separate) • Check safety interlocks (e.g., seat switch, neutral position)
Starter cranks slowly	<ul style="list-style-type: none"> • Weak battery • Corroded battery cables • High resistance in starter circuit • Engine oil too thick (cold weather) 	<ul style="list-style-type: none"> • Charge or replace battery • Clean and tighten battery and starter connections • Inspect cables for damage • Use appropriate engine oil for ambient temperature
Starter spins but engine does not crank	<ul style="list-style-type: none"> • Faulty starter drive (bendix) • Damaged flywheel ring gear 	<ul style="list-style-type: none"> • Replace starter motor • Inspect and replace flywheel ring gear if damaged
Grinding noise during starting	<ul style="list-style-type: none"> • Misaligned starter • Damaged starter drive or flywheel ring gear 	<ul style="list-style-type: none"> • Recheck starter mounting • Inspect starter drive and flywheel for damage

If troubleshooting steps do not resolve the issue, it is recommended to seek professional assistance.

8. SPECIFICATIONS

Feature	Detail
Brand	URQS
Model Numbers	2060, 2070, 552, 960, 4JB1
Voltage	12 Volts
Wattage	1.4 KW
Phase Type	Three Phase
Item Weight	12 pounds
Package Dimensions	10 x 6 x 6 inches
UPC	689000429990
Manufacturer	EPartsGlobal

9. WARRANTY AND SUPPORT

For information regarding warranty coverage and customer support, please refer to the documentation provided at the time of purchase or contact your retailer. Keep your proof of purchase for warranty claims.