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› Dorman 600-220 Front Locking Hub Instruction Manual

Dorman 600-220

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Model: 600-220

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of the Dorman 600-220 Front Locking Hub. This component is designed as a direct replacement for original equipment hubs on specific Ford Super Duty models, restoring four-wheel drive functionality.

2. PRODUCT OVERVIEW

The Dorman 600-220 Front Locking Hub is a critical component for engaging and disengaging the front wheels from the drivetrain in four-wheel drive vehicles. It features a robust design to ensure reliable performance and durability.



Figure 2.1: Angled view of the Dorman 600-220 Front Locking Hub, highlighting the red cap and the grey and black dial with "LOCK" and "FREE" indicators.



Figure 2.2: Side profile view of the Dorman 600-220 Front Locking Hub, showing its internal components and the red protective cap.

3. COMPATIBILITY

This Dorman 600-220 Front Locking Hub is compatible with the following Ford Super Duty vehicles:

- **Ford F-250 Super Duty:** 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018
- **Ford F-350 Super Duty:** 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018
- **Ford F-450 Super Duty:** 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018
- **Ford F-550 Super Duty:** 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018

Always verify fitment for your specific vehicle's make, model, and trim level before installation.

4. INSTALLATION (SETUP)

Installation of the Dorman 600-220 Front Locking Hub is a direct replacement process. While designed for straightforward fitment, professional installation is recommended for automotive components to ensure proper function and safety.

4.1. Pre-Installation Checks

- Ensure the new locking hub matches the original equipment hub in fit and function.
- Verify that all necessary components, such as gaskets and lubrication, are present and in good condition. The Dorman 600-220 typically comes pre-greased and includes a gasket.

4.2. Installation Steps (General Guidelines)

1. Safely lift and support the vehicle.
2. Remove the wheel and brake caliper assembly to access the hub.
3. Carefully remove the existing locking hub. Note that original screws may be installed with threadlocker; applying heat to the screw heads for approximately 20 seconds can aid removal and prevent breakage.
4. Clean the mounting surface thoroughly.
5. Install the new Dorman 600-220 Front Locking Hub, ensuring proper alignment.
6. Secure the hub using the original T25 Torx screws. Apply a drop of blue threadlocker to each screw before reinstallation for added security.
7. Reassemble the brake caliper and wheel.
8. Lower the vehicle and test the 4WD system.



Figure 4.1: Top-down view of the Dorman 600-220 Front Locking Hub, showing the mounting holes and the central mechanism.



Figure 4.2: Close-up view of the Dorman 600-220 Front Locking Hub's dial, clearly indicating the "LOCK" and "FREE" positions for operation.

5. OPERATION

The Dorman 600-220 Front Locking Hub allows manual engagement and disengagement of the front wheels for four-wheel drive operation. The hub features a simple dial mechanism with two primary settings:

- **LOCK:** Turn the dial to the "LOCK" position to engage the front wheels with the drivetrain. This is necessary for 4WD operation, providing power to the front wheels for improved traction in off-road or slippery conditions.
- **FREE:** Turn the dial to the "FREE" position to disengage the front wheels from the drivetrain. This allows the front wheels to spin independently, reducing wear on 4WD components and improving fuel efficiency during normal two-wheel drive operation.

Ensure the vehicle is stationary and the transmission is in neutral or park before changing the hub's position. Turn the dial firmly until it clicks into place for full engagement or disengagement.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and proper function of your Dorman Front Locking Hub. While the hub is designed for durability, periodic inspection is recommended.

- **Periodic Inspection:** Visually inspect the hub for any signs of damage, corrosion, or excessive wear during routine vehicle maintenance.
- **Lubrication:** The hub comes pre-greased. If disassembly is required for other repairs, ensure proper lubrication of internal moving parts upon reassembly, using appropriate automotive grease.
- **Cleanliness:** Keep the exterior of the hub clean from excessive dirt, mud, or debris, especially around the dial mechanism, to ensure smooth operation.

7. TROUBLESHOOTING

If you experience issues with your four-wheel drive system after installing or using the Dorman 600-220 Front Locking Hub, consider the following common troubleshooting steps:

Problem	Possible Cause	Solution
4WD not engaging/disengaging	Hub dial not fully engaged/disengaged; internal mechanism obstruction; vacuum line issue (if applicable to vehicle system).	Ensure the dial is firmly in the "LOCK" or "FREE" position. Check for any debris preventing full rotation. Inspect vacuum lines for leaks or damage if your vehicle uses a vacuum-actuated system.
Unusual noises from front wheels	Improper installation; damaged internal components; lack of lubrication.	Re-check installation steps, ensuring all fasteners are tightened to specification. If noises persist, professional inspection is recommended to diagnose internal damage or lubrication issues.
Hub difficult to turn	Accumulated dirt/debris; lack of lubrication; internal binding.	Clean the exterior of the hub, especially around the dial. If the issue persists, it may indicate internal binding or insufficient lubrication, requiring professional attention.

For complex issues or if troubleshooting steps do not resolve the problem, it is advisable to consult a qualified automotive technician.

8. SPECIFICATIONS

- **Product Dimensions:** 5.5 x 4.5 x 4.5 inches
- **Weight:** 2 Pounds
- **Item Model Number:** 600-220
- **Manufacturer:** Dorman Products
- **Material:** Alloy Steel
- **Fastener Type:** Wheel
- **Thread Size:** #2-56
- **Exterior Finish:** Machined
- **Color:** Brown
- **Contents:** 1x 4WD Manual Locking Hub

9. WARRANTY AND SUPPORT

The Dorman 600-220 Front Locking Hub is backed by Dorman's commitment to quality. Dorman offers **alimited lifetime warranty** on this product, providing peace of mind regarding its durability and performance.

For warranty claims, technical assistance, or further support, please contact Dorman Products directly through their official website or customer service channels. Keep your purchase receipt as proof of purchase.

Visit the [Dorman Store on Amazon](#) for more information on Dorman products and support resources.