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Dorman 615-145

Dorman 615-145 Spindle Nut Instruction Manual

Model: 615-145

PRODUCT OVERVIEW

The Dorman 615-145 Spindle Nut is a direct replacement component engineered to match the fit and function of the original part on specified vehicle applications. Manufactured from quality materials, this spindle nut is designed for reliable performance and long service life in automotive wheel hub assemblies.

Key Features:

- **Direct Replacement:** Matches the fit and function of the factory part for specific years, makes, and models.
- **Ideal Solution:** A reliable replacement for an original part that may be missing or has failed due to wear and fatigue.
- **Durable Construction:** Manufactured from quality alloy steel and aluminum to ensure reliable performance and extended service life.
- **Trustworthy Quality:** Backed by Dorman's extensive automotive experience and product expertise.

PACKAGE CONTENTS

Your Dorman 615-145 Spindle Nut package includes:

- 2 x Spindle Nuts

VEHICLE COMPATIBILITY

This spindle nut is compatible with the following vehicle models. Always verify fitment for your specific vehicle trim before installation.

- **Ford Festiva:** 1989, 1990, 1991, 1992, 1993
- **Mazda 323:** 1989
- **Mazda Miata:** 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1999, 2000, 2001, 2002, 2003, 2004, 2005

INSTALLATION (SETUP)

Important: Installation of automotive components, especially those related to wheel and axle assemblies, requires specialized tools and knowledge. Improper installation can lead to serious injury or vehicle damage. It is highly

recommended that installation be performed by a qualified automotive technician.

This section provides general guidance. Refer to your vehicle's specific service manual for detailed, model-specific instructions and torque specifications.

1. **Safety First:** Ensure the vehicle is safely lifted and supported on jack stands. Disconnect the battery if working near electrical components. Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
2. **Access the Spindle:** Remove the wheel, brake caliper, rotor, and any other components obstructing access to the spindle and existing nut.
3. **Remove Old Nut:** Carefully remove the old spindle nut. Note any washers or locking mechanisms.
4. **Inspect Components:** Inspect the spindle threads, bearings, and surrounding components for wear or damage. Replace any worn parts as necessary.
5. **Install New Spindle Nut:** Place the new Dorman 615-145 Spindle Nut onto the spindle. Ensure it threads on smoothly without cross-threading.
6. **Torque to Specification:** Using a torque wrench, tighten the spindle nut to the vehicle manufacturer's specified torque. This is critical for proper bearing preload and wheel security. Do NOT overtighten or undertighten.
7. **Secure (if applicable):** If your vehicle's design includes a cotter pin, locking tab, or other securing mechanism, install it according to the manufacturer's instructions.
8. **Reassemble:** Reinstall the brake rotor, caliper, wheel, and any other components removed. Torque wheel lug nuts to specification.
9. **Final Check:** Lower the vehicle and perform a final check to ensure all components are secure and functioning correctly.



Image: Top-down view of the Dorman 615-145 Spindle Nut, highlighting its threaded interior and hexagonal shape for wrenching.



Image: Angled view of the Dorman 615-145 Spindle Nut, showing the exterior finish and thread details.

OPERATION

The Dorman 615-145 Spindle Nut is a static component designed to secure the wheel hub assembly to the vehicle's spindle. Its primary function is to maintain proper bearing preload and prevent the wheel hub from detaching from the axle. Once correctly installed and torqued, the spindle nut operates passively as an integral part of the wheel assembly, ensuring safe and stable vehicle operation.

MAINTENANCE

As a critical fastening component, the Dorman 615-145 Spindle Nut itself requires no routine maintenance after proper installation. However, it is essential to periodically inspect the entire wheel hub and bearing assembly during routine vehicle maintenance (e.g., tire rotations, brake inspections) for any signs of looseness, wear, or damage. If the spindle nut appears loose, damaged, or if there are signs of bearing wear (such as noise or excessive play), the assembly should be inspected by a qualified technician and the nut replaced if necessary, always using new components and adhering to proper torque specifications.

TROUBLESHOOTING

Since the spindle nut is a passive component, direct troubleshooting typically involves issues related to its installation or

the components it secures. If you experience any of the following, it may indicate an issue with the spindle nut or the wheel bearing assembly:

- **Wheel Play/Looseness:** If the wheel feels loose or has excessive play when rocked, the spindle nut may be improperly torqued or the wheel bearings may be worn.
- **Abnormal Noise:** Grinding, humming, or roaring noises from the wheel area, especially when turning, can indicate worn wheel bearings, which might be related to improper spindle nut torque.
- **Vibration:** Unusual vibrations felt through the steering wheel or vehicle floor could be a symptom of wheel bearing issues.

In any of these cases, it is crucial to have the vehicle inspected by a professional automotive technician immediately. Do not attempt to drive the vehicle if you suspect a critical wheel assembly component is compromised.

SPECIFICATIONS

Attribute	Value
Brand	Dorman
Model Number	615-145
Material	Alloy Steel, Aluminum
Fastener Type	Spindle Nut
Thread Size	20mm
Exterior Finish	Machined
Color	Multi
Metal Type	Stainless Steel
Drive System	External Hex
Item Dimensions (L x W x H)	3.6 x 2.4 x 2.2 inches
Item Weight	4.8 ounces
Thread Type	Iso Metric
Inside Thread Size	M 20
Grade Rating	Commercial
Thread Style	External
Thread Class	Fine
Compatible Groove Diameter	2E+1 Millimeters
Number of Pieces	2
UPC	019495617457
Manufacturer	Dorman Products

Country of Origin	China
OEM Part Number(s)	D06Y33042; E9BZ3B477A; NA0133042A; NA0133042B

WARRANTY & SUPPORT

Dorman products are engineered for quality and reliability. For specific warranty information or technical support regarding your Dorman 615-145 Spindle Nut, please refer to the official Dorman website or contact Dorman customer service directly. You can also visit the [Dorman Store on Amazon](#) for more information and product resources.

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Example: How do I reset this device or fix this error?

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Model number, symptoms, what you tried, or the section of the manual you are using.

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