DEXTER AXLE 005-101-00

Instruction Manual

Dexter 005-101-00 Axle Tang Washer

Model: 005-101-00

1. Introduction and Product Overview

The Dexter 005-101-00 Axle Tang Washer is a specialized component designed for use in axle assemblies. Its primary function is to prevent the axle nut from rotating and loosening, thereby maintaining the proper torque and secure fit of the wheel hub assembly. This washer features a unique tang or tab that engages with a keyway or slot on the axle shaft, providing a positive locking mechanism. It is crucial for the safe and reliable operation of trailer and other vehicle axles.



Figure 1: A single Dexter Axle Tang Washer, showing its circular body and the distinctive tang designed for locking.

2. Product Features

- **Product Type:** Washer
- **Material:** Brass
- **Design:** Conical Spring Washer with Tang
- **Origin:** Manufactured in China
- **Weight:** Approximately 0.007 Kilograms (0.211 ounces)
- **Dimensions:** Package dimensions are approximately 1.5 cm L x 4.5 cm W x 6.9 cm H

3. Specifications

Specification	Detail
Model Number	005-101-00
Brand	DEXTER AXLE
Material	Brass
Outside Diameter	1.63 Inches
Washer Type	Conical Spring
Exterior Finish	Brass
Fastener Size	1-9/16 Inch
Item Thickness	0.36 Inches
Number of Pieces	1
Item Weight	0.211 ounces
Country of Origin	China
UPC	765053177696

4. Setup and Installation

The Dexter 005-101-00 Axle Tang Washer is an integral part of an axle's hub assembly. Proper installation is critical for safety and performance. Always refer to the specific service manual for your axle or trailer for detailed, step-by-step installation instructions, as procedures may vary by axle type and manufacturer.

General Installation Guidelines:

1. **Safety First:** Ensure the vehicle or trailer is securely supported on jack stands. Disconnect the battery if working near electrical components. Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
2. **Component Inspection:** Before installation, thoroughly inspect the axle shaft, hub, bearings, and axle nut for any signs of wear, damage, or corrosion. Replace any compromised components.
3. **Washer Placement:** The tang washer is typically placed on the axle shaft before the axle nut. The tang (or tab) on the washer must align and engage with a corresponding slot or keyway on the axle shaft to prevent rotation.
4. **Nut Torquing:** Install the axle nut and torque it to the manufacturer's specified value using a calibrated torque wrench. Overtightening or undertightening can lead to premature wear or failure.
5. **Locking the Tang:** Once the axle nut is torqued, the tang of the washer is bent over one of the flats of the axle nut. This action physically locks the nut in place, preventing it from loosening during operation. Ensure the tang is securely bent and provides a positive lock.
6. **Final Checks:** After installation, verify that all components are securely fastened and that there is no excessive play in the wheel hub assembly.

Note: *If you are unsure about any step of the installation process, consult a qualified mechanic or refer to professional service manuals.*

5. Operating Principle

The Dexter 005-101-00 Axle Tang Washer does not have an active "operation" in the traditional sense. Instead, it serves as a critical passive safety device within the axle assembly. Once correctly installed and its tang is bent to lock the axle nut, it functions continuously to:

- **Prevent Nut Loosening:** By physically engaging with both the axle shaft and the axle nut, the tang washer creates a mechanical barrier that resists the nut's tendency to loosen due to vibrations, rotational forces, or thermal expansion/contraction during vehicle operation.
- **Maintain Torque:** It helps maintain the specified torque on the axle nut, which is essential for proper bearing preload and the overall stability and longevity of the wheel hub assembly.
- **Enhance Safety:** A securely fastened axle nut is vital for preventing wheel detachment, bearing failure, and other hazardous conditions. The tang washer significantly contributes to the safety of the axle system.

6. Maintenance

While the tang washer itself requires minimal maintenance, it is part of a system that should be regularly inspected. Its integrity is crucial for axle safety.

Inspection and Replacement:

- **Regular Inspection:** During routine axle or wheel bearing maintenance, always inspect the tang washer. Look for signs of deformation, cracks, corrosion, or if the tang has become straightened or dislodged from the axle nut.
- **One-Time Use:** Tang washers are generally considered single-use items. Once the tang has been bent to lock the nut, it should not be straightened and reused. The metal can fatigue, reducing its locking effectiveness. Always replace the tang washer with a new one whenever the axle nut is removed for service or inspection.
- **Proper Fit:** Ensure the replacement washer is the correct size and type (Dexter 005-101-00 or equivalent) for your specific axle application. An incorrect washer may not provide adequate locking.

7. Troubleshooting

Issues related to the tang washer typically stem from incorrect installation or using a worn/incorrect part.

Common Issues and Solutions:

- **Axle Nut Loosening:**
  - **Cause:** Tang washer not properly bent, incorrect washer size, or washer reused.
  - **Solution:** Re-torque axle nut to specifications, install a new tang washer, and ensure the tang is securely bent over the nut flat. Verify correct washer size.
- **Washer Does Not Fit:**
  - **Cause:** Incorrect washer size or type for the axle shaft or nut.
  - **Solution:** Verify the correct part number (005-101-00) and specifications against your axle's requirements. Ensure the axle shaft keyway is clear.
- **Tang Breaks During Bending:**
  - **Cause:** Excessive force, defective washer, or incorrect bending tool.
  - **Solution:** Discard the broken washer and use a new one. Apply appropriate, controlled force when bending the tang.

Important: *Any issues with axle components should be addressed immediately by a qualified professional to prevent serious safety hazards.*

8. Warranty Information

Specific warranty terms for the Dexter 005-101-00 Axle Tang Washer are provided by the manufacturer, DEXTER AXLE. As this is a small component, warranty coverage typically applies to manufacturing defects. For detailed information regarding warranty periods, coverage, and claims procedures, please refer to the official DEXTER AXLE warranty documentation that accompanied your purchase or visit the official DEXTER AXLE website.

Please retain your proof of purchase for any warranty claims.

9. Support and Contact

For technical assistance, product inquiries, or support related to the Dexter 005-101-00 Axle Tang Washer, please contact DEXTER AXLE directly. Their official website typically provides contact information, including phone numbers for customer service and technical support, as well as online inquiry forms.

You may also reach out to the retailer from whom you purchased the product for initial support or guidance.

Manufacturer: Dexter
Brand: DEXTER AXLE
Official Website: www.dexteraxle.com (*Note: This is a general link and may not be the exact support page. Please navigate their site for specific contact details.*)

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