

Dorman 594-740

Dorman 594-740 Engine Harmonic Balancer Instruction Manual

Model: 594-740 | Brand: Dorman

PRODUCT OVERVIEW

The Dorman 594-740 Engine Harmonic Balancer is a direct replacement component designed to match the fit and function of the original harmonic balancer in compatible vehicles. Its primary purpose is to absorb engine vibration, contributing to smoother engine operation and extended component life.

This harmonic balancer features a stress-resistant rubber bond for effective vibration dampening. It is manufactured to stringent standards, ensuring excellent tensile and impact strength for enhanced durability and reliability.

Key Features:

- **Ideal Replacement:** Engineered to precisely match the original equipment's fit and function.
- **Durable Construction:** Built with careful construction and stringent specifications for long-lasting performance.
- **Thoroughly Tested:** Undergoes dimensional verification, material validation, and functional testing to ensure quality.
- **Trustworthy Quality:** Backed by Dorman's extensive automotive experience.
- **Vehicle Compatibility:** Compatible with specific vehicle models, including Ford Mustang (1999, 2000). Always verify fitment for your exact vehicle.

WHAT'S IN THE BOX

The Dorman 594-740 Engine Harmonic Balancer package includes:

- 1 x Harmonic Balancer

SETUP AND INSTALLATION

Installation of an engine harmonic balancer requires specialized tools and automotive knowledge. It is highly recommended that this component be installed by a qualified automotive technician. Incorrect installation can lead to engine damage or improper operation.

For detailed installation instructions specific to your vehicle, please refer to your vehicle's service manual or consult a professional mechanic. A general installation manual in PDF format may also be available from Dorman's official resources.



Image 1: Side view of the Dorman 594-740 Engine Harmonic Balancer, showing the pulley grooves and the main body.



Image 2: Front view of the Dorman 594-740 Engine Harmonic Balancer, illustrating the internal structure and mounting points.



Image 3: Rear view of the Dorman 594-740 Engine Harmonic Balancer, showing the sensor ring and mounting surface.

General Overview of Harmonic Balancers

Your browser does not support the video tag.

Video 1: An overview of Dorman harmonic balancers, explaining their function and importance. This video provides general information and is not a step-by-step installation guide for the 594-740 model.

OPERATING PRINCIPLES

The harmonic balancer, also known as a crankshaft pulley or vibration damper, is crucial for engine operation. It is mounted on the front of the crankshaft and serves two primary functions:

1. **Vibration Dampening:** The engine's combustion process creates torsional vibrations in the crankshaft. The harmonic balancer, with its outer ring connected to the inner hub by a rubber isolator, absorbs these vibrations. This prevents excessive stress on the crankshaft and other engine components, leading to smoother engine performance and increased longevity.
2. **Accessory Drive:** The outer ring of the harmonic balancer typically features grooves for the serpentine belt, which drives various engine accessories such as the alternator, power steering pump, air conditioning compressor, and water pump.

When properly installed and functioning, the Dorman 594-740 harmonic balancer ensures that engine vibrations are effectively managed, contributing to the overall stability and efficiency of your vehicle's engine system.

MAINTENANCE

Harmonic balancers are designed for long-term durability, but regular inspection is recommended as part of routine vehicle maintenance. Over time, the rubber isolator can degrade due to heat, age, and exposure to fluids, leading to cracks or separation.

Inspection Guidelines:

- Visually inspect the harmonic balancer for any signs of cracking, bulging, or separation of the rubber ring.
- Check for any wobbling or unusual movement of the balancer while the engine is running (exercise extreme caution).
- Listen for unusual noises, such as squealing or rattling, which could indicate a failing balancer or accessory drive component.

If any signs of wear or damage are observed, it is advisable to have the component inspected and replaced by a qualified technician to prevent further engine issues.

TROUBLESHOOTING

A failing harmonic balancer can manifest several symptoms. If you experience any of the following, it is recommended to have your vehicle inspected by a professional:

- **Excessive Engine Vibration:** Increased vibration felt through the steering wheel, floor, or seats, especially at certain RPMs.
- **Engine Misfires or Rough Idling:** While not always directly caused by the balancer, severe vibrations can affect engine timing or other components.
- **Squealing or Chirping Noises:** These sounds often indicate a worn or misaligned serpentine belt, which can be a symptom of a failing balancer affecting belt tension.
- **Visible Wobble:** The harmonic balancer appears to wobble or move erratically when the engine is running.
- **Cracked or Deteriorated Rubber:** Visual inspection reveals cracks, chunks missing, or separation in the rubber isolator.

Addressing these issues promptly can prevent more significant and costly engine repairs.

SPECIFICATIONS

Attribute	Detail
Manufacturer	Dorman Products

Brand	Dorman
Model	Harmonic Balancer
Item Model Number	594-740
Manufacturer Part Number	594-740
OEM Part Number	PB1831N; XR3Z6B321AA
Item Weight	6.3 pounds
Product Dimensions	8.8 x 9 x 7.8 inches
Exterior Finish	Painted
ASIN	B07MFWBR5R
Date First Available	January 9, 2019

WARRANTY INFORMATION

For specific warranty details regarding the Dorman 594-740 Engine Harmonic Balancer, please refer to the official Dorman Products website or contact Dorman customer service directly. Warranty terms and conditions may vary and are subject to the manufacturer's policies at the time of purchase.

CUSTOMER SUPPORT

If you have any questions regarding the installation, operation, or compatibility of your Dorman 594-740 Engine Harmonic Balancer, please contact Dorman Products customer support. You can typically find contact information, FAQs, and additional resources on the official Dorman website.

Dorman Official Website: www.dormanproducts.com

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

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

Details

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

Submit question