



Car Torsional Vibration Damper Seres Customization Engine Stability Lightweight

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: Dongfeng
- Certification: IATF 16949:2016
- Model Number: 1025100-R30-05
- Minimum Order Quantity: 100 piece
- Price: EXW 38.8CNY/piece
- Packaging Details: Metal mesh box packaging
- Delivery Time: Spot goods
- Payment Terms: T/T
- Supply Ability: Annual production of 500000 pieces



Product Specification

- Material: Steel
- Size: Standard
- Package Contents: 1 Torsional Vibration Damper
- Efficiency: Effectively Reduces Vibration By 80%
- Dimensions: 15x 15 X 6 Cm
- Installation Method: Bolt-on
- Application: Automotive Industry
- Warranty: 1 Year
- Durability: Highly Durable
- Compatibility: Universal
- Color: Black
- Operating Temperature: -40°C To 120°C
- Function: Reduce Torsional Vibration
- Maintenance: Low Maintenance Required
- Weight: 0.9kg



More Images



Product Description

Passenger car torsional vibration damper: a key component to ensure smooth driving and vehicle durability. In modern passenger car manufacturing, every detail concerns the safety of the driver and the comfort of the ride. As an important component in the transmission system, the importance of torsional vibration dampers is self-evident. It can not only effectively reduce the torsional vibration generated by the engine and transmission system, but also improve the overall performance of the vehicle and extend the service life of key components. This article will provide a detailed introduction to the working principle, types, importance, selection points, and maintenance of torsional vibration dampers for passenger cars, helping readers and users to have a deeper understanding of this key component.

1, Working principle of torsional vibration dampers for passenger cars

The main function of a passenger car torsional vibration damper is to absorb and dissipate torsional vibrations generated by components such as the engine and transmission shaft. These vibrations usually originate from uneven torque output during engine operation, or friction and wear of components such as gears and bearings in the transmission system. Long term torsional vibration not only causes accelerated wear of components, but may also affect the driving stability and ride comfort of the vehicle.

The working principle of torsional vibration dampers is based on their internal elastic elements (such as rubber, springs) and damping elements (such as fluids). When the transmission system undergoes torsional vibration, the elastic elements absorb the vibration energy and convert it into thermal energy or other forms of energy. At the same time, damping elements consume vibration energy through fluid flow, friction, and other means, gradually weakening the vibration until it disappears. This process ensures the smooth operation of the transmission system and protects key components from damage.

2, Types of torsional vibration dampers for passenger cars

Passenger car torsional vibration dampers can be classified into various types based on their structure and working principle. Here are some common types:

Rubber torsional vibration damper: Rubber dampers are widely used in passenger cars due to their excellent elasticity and damping performance. They are usually composed of rubber and metal skeletons, with the rubber part responsible for absorbing vibrations, while the metal skeleton provides the necessary strength and stability. Rubber shock absorbers have the advantages of low cost, easy installation and maintenance.

Hydraulic torsional vibration damper: Hydraulic dampers use the damping effect of liquid to reduce vibration. They usually contain one or more chambers filled with liquid, and when vibration occurs, the liquid flows inside the chambers and generates damping force, thereby consuming vibration energy. Hydraulic shock absorbers have high damping performance and stability, making them suitable for situations with high requirements for vibration control.

Air torsional vibration damper: Air dampers use air as an elastic element to absorb vibration energy through compression and expansion of air. They usually have advantages such as fast response speed and stable dynamic performance, but the cost is relatively high and requires regular maintenance.

Composite torsional vibration damper: Composite dampers combine the advantages of various dampers, such as rubber, hydraulic, and air. They typically have more complex structures and higher performance requirements, but can provide more comprehensive vibration control effects.

3, The importance of torsional vibration dampers for passenger cars

The importance of torsional vibration dampers for passenger cars is reflected in the following aspects:

Improving driving stability: The torsional vibration damper can significantly reduce the torsional vibration of the transmission system, making the vehicle travel more smoothly. This helps to enhance the driver's confidence in handling and the passenger's comfort.

Extend the service life of components: Long term torsional vibration can accelerate the wear of components in the transmission system, such as gears, bearings, etc. The use of torsional vibration dampers can effectively reduce the wear of these components and extend their service life.

Reduce noise and vibration: torsional vibration dampers can absorb and dissipate vibration energy, thereby reducing noise and vibration during vehicle operation. This helps to improve the ride comfort and driving quality of the vehicle.

Improving fuel economy: By reducing vibration and friction losses in the transmission system, torsional vibration dampers help improve the fuel economy of vehicles. This helps to reduce operating costs and minimize the impact on the environment.

4, Key points for selecting torsional vibration dampers for passenger cars

Choosing appropriate torsional vibration dampers for passenger cars is crucial for ensuring vehicle performance and extending service life. Here are some key selection points:

Matching vehicle models and engines: Different vehicle models and engines have different requirements for torsional vibration dampers. When selecting, it should be ensured that the selected shock absorber matches the vehicle model and engine to meet its performance requirements.

Consider working environment: The working environment of passenger cars may involve different road conditions and climate conditions. When selecting shock absorbers, consideration should be given to their working environment, such as temperature range, humidity, dust, etc., to ensure their long-term stable operation.

Pay attention to performance parameters: When selecting shock absorbers, attention should be paid to their performance parameters, such as damping force, stiffness, response time, etc. These parameters will directly affect the effectiveness of the shock absorber and the performance of the vehicle.

Choose well-known brands: Famous brands usually have higher technological levels and more reliable product quality.

Choosing a well-known brand can ensure the performance and durability of shock absorbers, and reduce maintenance costs.

Considering cost-effectiveness: When choosing shock absorbers, factors such as price, performance, and service life should be comprehensively considered. Choosing cost-effective shock absorbers can provide better protection for your vehicle.

5, Maintenance and upkeep of torsional vibration dampers for passenger cars

In order to ensure the long-term stable operation of passenger car torsional vibration dampers, regular maintenance and upkeep are necessary. Here are some common maintenance measures:

Regular inspection: Regularly inspect the shock absorber, including its appearance, connectors, and elastic components. Ensure that the shock absorber is not damaged, loose, or deformed.

Cleaning and lubrication: Keep the shock absorber clean and lubricated. Regularly clean the dirt and grease on the surface of the shock absorber, and apply an appropriate amount of lubricant to reduce friction and wear.

Replace elastic components: When the elastic components wear or age, they need to be replaced in a timely manner. Ensure that the new elastic element matches the original shock absorber and has appropriate stiffness and damping performance.

Check installation and fastening: Ensure that the installation and fastening of the shock absorber meet the manufacturer's requirements. Regularly check whether the connectors and fasteners are loose or damaged, and replace or repair them in a timely manner.

Record and maintain history: Record the maintenance history of shock absorbers, including inspection dates, replacement parts, and repair status. This helps to promptly identify potential issues and take corresponding measures.

epilogue

As an important component in the transmission system, torsional vibration dampers for passenger cars are of great significance in ensuring smooth driving, improving vehicle performance, and extending service life. By understanding the working principle, types, importance, selection points, and maintenance of torsional vibration dampers, we can better understand and use this key component. When choosing shock absorbers, factors such as vehicle model, working environment, performance parameters, brand awareness, and cost-effectiveness should be comprehensively considered. At the same time, regular maintenance can ensure the long-term stable operation of shock absorbers, providing better protection for vehicles. I hope this article can provide you with useful information and guidance to help you better understand and use passenger car torsional vibration dampers.



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