



Iron Casting Engine Bracket Export Grade High Durability

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: Dongfeng
- Certification: IATF 16949:2016
- Minimum Order Quantity: 100 piece
- Packaging Details: Metal mesh box packaging
- Delivery Time: Spot goods
- Payment Terms: T/T
- Supply Ability: Annual production of 50000 pieces



Product Specification

- Usage: Automotive Engines
- Function: Vibration Damping
- Machinability: Easy
- Country Of Origin: China
- Warranty: 5 Year
- Weather Resistance: Yes
- Size: Standard
- Color: Black
- Heat Resistance: Yes
- Weight: 2.5 Kg
- Mounting Type: Engine Mount
- Type: Bracket
- Material: Cast Iron
- Finish: Rust Resistant
- Highlight: **Manufacturers Engine Cast Iron Bracket,**

Product Description

Engine cast iron bracket: tough support, the cornerstone of excellent performance

In the power system of modern automobiles and industrial equipment, the engine serves as the heart, and its stable operation is crucial. In this precise and complex mechanical structure, the engine bracket serves as a key component for supporting and fixing the engine, and its material selection and design directly affect the performance, safety, and service life of the entire machine. Among numerous materials, cast iron has become the ideal choice for engine mounts due to its unique physical properties and economic advantages. This article will delve into the selling points of engine cast iron brackets, comprehensively analyzing why they can become an indispensable part of improving the overall efficiency of engines from multiple dimensions such as material characteristics, manufacturing processes, performance, cost-effectiveness, and environmental sustainability.

1, Excellent characteristics of cast iron materials

1. High strength and rigidity

Cast iron, especially gray cast iron and ductile iron, is known for its excellent strength and rigidity. Gray cast iron has good compressive performance and can withstand the huge vibrations and impact forces generated during engine operation, ensuring that the engine can remain stable under various working conditions. By adding spheroidizing agents and inoculation agents, the graphite morphology in ductile iron changes from flake to spherical, significantly improving the tensile strength and toughness of the material, making it more suitable for support design that can withstand complex stress states.

2. Good thermal stability

During the operation of the engine, a large amount of heat is generated. Cast iron material, due to its good thermal conductivity and stability, can effectively disperse and resist thermal deformation, maintaining the long-term stability of the support structure. This feature is crucial for preventing bracket deformation, loosening, and even failure caused by thermal expansion and contraction, ensuring the continuous and reliable operation of the engine system.

3. Wear resistance and corrosion resistance

The surface hardness of cast iron is high, which can effectively resist the erosion of the support surface by media such as engine oil and coolant, reduce wear, and extend service life. At the same time, cast iron material has strong resistance to various chemicals and is not easily corroded, further enhancing the durability of the bracket.

2, Exquisite manufacturing craftsmanship

1. Precision casting technology

Modern casting techniques, such as high-pressure molding, vacuum casting, and centrifugal casting, can achieve high-precision and high-quality production of cast iron supports. These technologies not only improve the dimensional accuracy and surface smoothness of castings, but also reduce internal defects such as porosity and slag inclusion, thereby ensuring the mechanical performance and reliability of the bracket.

2. Heat treatment and machining

After casting, the bracket still needs to undergo heat treatment, such as annealing, quenching, and tempering, to further optimize its structure and properties, improve hardness and toughness. Subsequent precision machining, such as milling, drilling, and grinding, ensures precise fit between the bracket and other engine components, improving overall assembly accuracy and efficiency.

3, Excellent performance

1. Efficient shock absorption and noise reduction

The cast iron bracket effectively absorbs and disperses the vibration and noise generated by the engine operation through reasonable design, such as using multi-point support, elastic pads and other structures, providing passengers with a more comfortable and peaceful driving environment. Meanwhile, good shock absorption performance also helps to reduce fatigue damage to engine components and extend the overall service life.

2. Strengthen structural stability

The cast iron bracket provides a stable support platform for the engine with its sturdy structure. Whether driving at high speeds, accelerating rapidly, or in harsh road conditions, it can ensure stable engine position, reduce displacement caused by vibration, and ensure smooth and efficient power transmission.

3. Easy to maintain and replace

The cast iron bracket structure is relatively simple, with reliable connections between components, making it easy for daily inspection and maintenance. When replacement is needed, its standardized and serialized design makes maintenance work faster and more convenient, reduces downtime of vehicles or equipment, and improves operational efficiency.

4, Cost benefit analysis

1. Material cost advantage

Compared to lightweight materials such as aluminum alloy and stainless steel, cast iron has abundant raw materials and a more affordable price, making cast iron brackets significantly advantageous in cost control. Especially for large-scale production, the manufacturing cost of cast iron brackets is lower, which is conducive to reducing the selling price of end products and enhancing market competitiveness.

2. Long lifespan and low maintenance costs

The high durability and low failure rate of cast iron brackets mean longer service life and less maintenance requirements. In the long run, this saves users a lot of costs incurred due to frequent replacement and maintenance, achieving higher economic benefits.

5, Environmental Protection and Sustainability

1. Material recyclability

Cast iron, as a traditional metal material, has good recyclability. Waste cast iron supports can be melted and refined to transform into new casting materials, achieving resource recycling and reducing dependence on primary mineral resources and mining, in line with the concept of green manufacturing.

2. Production process optimization

With the advancement of casting technology, energy consumption and emissions in modern cast iron production processes continue to decrease. For example, measures such as adopting clean energy, optimizing smelting processes, and implementing waste management have effectively reduced environmental pollution and improved the sustainability of the production process.

In summary, the engine cast iron bracket has become an indispensable component for improving the overall efficiency of the engine and ensuring the stable operation of vehicles and industrial equipment, thanks to its excellent material properties, exquisite manufacturing processes, outstanding performance, significant cost-effectiveness, and environmental sustainability. In the future, with the continuous innovation of materials science and manufacturing technology, the performance of cast iron brackets will be further improved, and their application fields will be more extensive, continuously contributing to the optimization and upgrading of power systems.



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