

Crane Wire Rope Pulley - High-Performance Lifting Component

Original link: <https://www.globalweihua.com/crane-hook/crane-wire-rope-pulley/>

Product Overview

The Crane Wire Rope Pulley is a critical component in lifting machinery, designed to support and guide wire ropes in crane systems. It plays a vital role in reducing friction between the wire rope and the pulley, minimizing wear on both components, and ensuring smooth, efficient, and safe load lifting operations. Suitable for various types of cranes, including overhead cranes, gantry cranes, tower cranes, and mobile cranes, this pulley is engineered to meet the rigorous demands of industrial lifting applications.

Core Features

- **Durable Material Construction:** Manufactured from high-strength cast iron, alloy steel, or ductile iron, the pulley boasts excellent wear resistance, impact toughness, and load-bearing capacity. The material is carefully selected to withstand heavy loads, frequent use, and harsh industrial environments such as high temperatures, humidity, and dust.
- **Precision Machined Groove:** The pulley groove is precision-machined to match the diameter of the wire rope, ensuring optimal contact between the rope and the pulley. This design reduces rope wear, prevents rope slippage, and distributes the load evenly, enhancing the overall service life of both the pulley and the wire rope.
- **High-Quality Bearing System:** Equipped with premium rolling bearings (such as deep groove ball bearings or tapered roller bearings) or plain bearings, the pulley operates with low friction and smooth rotation. The bearing system is sealed to prevent the ingress of dust, dirt, and moisture, reducing maintenance requirements and extending the pulley's operational life.
- **Corrosion Resistance Treatment:** The surface of the pulley undergoes professional anti-corrosion treatment, including galvanization, painting, or powder coating. This treatment effectively protects the pulley from rust and corrosion, making it suitable for outdoor or corrosive industrial environments.

- **Customizable Design:** Available in a wide range of sizes, groove types, and mounting configurations to accommodate different wire rope diameters, load capacities, and crane models. We can also provide custom pulleys according to customers' specific technical requirements and drawing specifications.

Technical Specifications

Parameter	Specification
Pulley Diameter Range	100mm - 1200mm (Customizable)
Rated Load Capacity	0.5t - 500t
Applicable Wire Rope Diameter	6mm - 80mm
Rotation Speed	≤ 300r/min
Material	Cast Iron (HT200/HT250), Alloy Steel (45#, 40Cr), Ductile Iron (QT450/QT500)
Surface Treatment	Hot-Dip Galvanization, Electroplating, Spray Painting, Powder Coating
Bearing Type	Deep Groove Ball Bearing, Tapered Roller Bearing, Plain Bearing

Application Scenarios

The Crane Wire Rope Pulley is widely used in various industrial fields where lifting operations are required, including:

1. **Manufacturing Industry:** Used in factory workshops for lifting heavy machinery, workpieces, and materials in automotive, machinery manufacturing, and aerospace industries.
2. **Construction Industry:** Applied in tower cranes, gantry cranes, and mobile cranes for lifting construction materials such as steel bars, concrete, and building components on construction sites.
3. **Port and Logistics:** Utilized in port cranes and container cranes for loading and unloading containers, bulk cargo, and other goods.

4. **Mining Industry:** Used in mining cranes for lifting ore, equipment, and personnel in mines and mineral processing plants.
5. **Power Industry:** Applied in cranes for installing and maintaining power equipment such as transformers, generators, and transmission towers.

Product Advantages

- **Long Service Life:** High-quality materials and precision manufacturing ensure a longer service life compared to ordinary pulleys, reducing replacement frequency and costs.
- **Enhanced Safety:** The stable structure, anti-slip groove design, and reliable bearing system minimize the risk of equipment failure and accidents during lifting operations.
- **Improved Efficiency:** Low-friction rotation reduces energy consumption and ensures smooth load lifting, improving the overall work efficiency of the crane system.
- **Easy Maintenance:** Sealed bearing design and corrosion-resistant surface treatment reduce maintenance workload and downtime, saving time and labor costs.

Quality Assurance

Our Crane Wire Rope Pulleys are produced in strict accordance with international standards (such as ISO, DIN, and GB) and undergo rigorous quality inspection procedures, including material testing, dimensional inspection, dynamic balance testing, and load-bearing testing. We provide a quality guarantee period of 12 months from the date of delivery. In case of any quality problems within the guarantee period, we will provide free replacement or repair services.

Contact Us

If you are interested in our Crane Wire Rope Pulley or have any questions about product specifications, prices, or customization, please feel free to contact us. Our professional sales team will provide you with timely and detailed consultation services.

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