

Overhead Travelling Crane

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Single girder overhead travelling crane

Product Overview

An **overhead travelling crane**, also known as an **overhead crane** or bridge crane, is a vital material handling equipment widely used in industrial workshops, warehouses, factories, and construction sites. It consists of a bridge structure that travels along elevated rails, a trolley that moves horizontally along the bridge, and a hoist for lifting and lowering loads. This type of crane is designed to efficiently transport heavy or bulky items within a fixed working area, significantly improving operational efficiency and reducing manual labor intensity. With various configurations and customization options, overhead travelling cranes can meet the diverse needs of different industries and working conditions.

Main Types of Overhead Travelling Cranes

- **Single girder overhead travelling crane:** This crane is characterized by a single main beam, offering a perfect balance of functionality and cost-efficiency. With lifting capacities typically from 1t to 20t, it's lightweight and occupies less space, making it a top choice for small to medium-sized workshops, warehouses, and assembly lines where load demands are moderate. Its simple structure ensures easy installation, maintenance, and operation, often paired with an [electric hoist](#) for seamless load handling.
- **Double girder overhead travelling crane:** Boasting two parallel main beams, this model delivers superior load-bearing capacity (5t to 500t+) and stability. It's designed for heavy-duty scenarios in large factories, steel mills, and ports. The double girder configuration allows for larger working spans, higher lifting heights, and compatibility with diverse attachments like grab buckets and magnets, enabling it to handle steel plates, coils, and containers with ease.



Double girder overhead travelling crane

- **Heavy duty overhead travelling crane (50t-200t):** Engineered for extreme load requirements, this crane is a workhorse in industries like steel manufacturing and heavy machinery. It features reinforced main beams, high-strength hoisting systems, and robust travel mechanisms to safely lift and transport 50t to 200t loads. Equipped with advanced safety features such as overload protection and emergency stop, it ensures reliable operation in demanding heavy-duty environments.
- **Light duty overhead travelling crane (1t-10t):** Tailored for light-load applications, this crane is compact, energy-efficient, and easy to maneuver. Ideal for small workshops, electronic factories, and warehouses, it handles loads from 1t to 10t. Its lightweight design minimizes stress on the building structure, while its simple control system allows for quick operation, making it suitable for frequent, low-weight material transfers.
- **Explosion-proof overhead travelling crane for chemical industry:** Specifically developed for hazardous chemical environments, this crane meets strict explosion-proof standards. It uses explosion-proof motors, electrical enclosures, and wiring to prevent sparks that could ignite flammable gases, vapors, or dust. With corrosion-resistant components, it safely handles chemical raw materials and finished products in chemical plants, oil refineries, and pharmaceutical facilities.
- **Foundry overhead travelling crane with heat-resistant hook:** Designed to withstand high temperatures in foundries and steel mills, this crane is equipped with heat-resistant hooks, cables, and insulation materials. It can endure extreme heat from molten metal and hot castings, ensuring safe lifting and transport during smelting and casting processes. Its durable structure and heat-resistant features make it essential for high-temperature industrial settings.
- **Overhead travelling crane with electric hoist:** This integrated model combines an overhead travelling crane with a high-performance electric hoist, simplifying load handling. The electric hoist provides smooth and precise lifting/lowering operations, while the crane's bridge and trolley enable horizontal movement. It's widely used in various industries for general material handling, offering convenience, efficiency, and reliability in both light and medium-duty applications.
- **Customized overhead travelling crane for warehouse:** Tailored to the unique layout and needs of warehouses, this crane can be customized in terms of span, lifting height, and control system. It optimizes warehouse space utilization, often featuring compact designs to navigate narrow aisles. Equipped with features like automatic positioning or remote control, it enhances efficiency in loading, unloading, and stacking goods in warehouse logistics operations.

- **European standard overhead travelling crane:** Adhering to strict European safety and quality standards, this crane emphasizes precision, energy efficiency, and low noise. It uses high-quality components and advanced design concepts, ensuring smooth operation and long service life. With compact dimensions and optimized weight distribution, it’s suitable for modern factories and industrial facilities that require high standards of performance and safety.
- **Low headroom overhead travelling crane for limited space:** Specifically designed for spaces with restricted vertical clearance, this crane has a compact trolley and optimized structure to maximize available headroom. It can operate in old workshops, buildings with low ceilings, or areas where vertical space is at a premium. Despite its low profile, it maintains reliable lifting capacity and performance, solving space constraints in various industrial settings.

Overhead Travelling Crane Key Features and Advantages

- **High Lifting Capacity:** Overhead travelling cranes can handle loads of various weights, from light tons to hundreds of tons, meeting the needs of different industrial applications.
- **Large Working Range:** The bridge travels along the length of the workshop, and the trolley moves along the width of the bridge, enabling the crane to cover a large rectangular working area, maximizing the utilization of the workspace.
- **Precise Control:** Equipped with advanced control systems, such as frequency conversion speed regulation, the crane can achieve smooth lifting, lowering, and movement, ensuring precise positioning of loads, which is crucial for assembly, processing, and other precision operations.
- **High Operational Efficiency:** Compared to manual material handling or other lifting equipment, overhead travelling cranes can transport loads quickly and efficiently, reducing the time required for material transfer and improving overall production efficiency.
- **Durable and Reliable:** Made of high-quality steel and components, overhead travelling cranes have a strong structure and long service life. They undergo strict quality control and testing during production to ensure reliable performance even in harsh working environments.
- **Customizable:** According to the specific requirements of customers, such as lifting capacity, working span, lifting height, and working environment, overhead travelling cranes can be customized with different configurations, accessories, and control systems.

Overhead Travelling Crane Technical Parameter Table

Parameter Category	Specification Range	Description

Lifting Capacity	1t - 500t+	Varies by model; light duty (1t-10t), medium duty (10t-50t), heavy duty (500t+)
Working Span	5m - 30m+	Distance between crane rails; customized based on workshop/warehouse dimensions
Lifting Height	3m - 30m+	Vertical distance from hook to ground; adjustable according to working requirements
Travel Speed	Bridge: 10m/min - 40m/min; Trolley: 5m/min - 20m/min	Frequency conversion speed regulation available for smooth operation
Lifting Speed	0.5m/min - 15m/min	Dual-speed or variable-speed options for precise load handling
Power Supply	380V/50Hz (customizable for different regions)	Three-phase AC power; explosion-proof electrical system for hazardous environments
Control Mode	Pendant control, remote control, cabin control	Select based on operation convenience and working environment
Safety Devices	Overload limiter, emergency stop, limit switch, anti-collision device	Ensures safe operation and prevents accidents

Overhead Travelling Crane Applications

Overhead travelling cranes are widely used in various industries, including:

- **Manufacturing Industry:** Used in automobile factories, machinery manufacturing plants, and electronic factories for lifting and transporting raw materials, semi-finished products, and finished products during the production process.
- **Steel Industry:** Applied in steel mills for handling steel ingots, steel plates, coils, and other steel products, as well as in the smelting and casting processes.
- **Logistics and Warehousing:** Used in warehouses, freight yards, and ports for loading, unloading, and stacking goods, improving the efficiency of logistics operations.
- **Construction Industry:** Utilized in construction sites for lifting construction materials, such as steel bars, concrete, and equipment, to high-rise buildings or other construction positions.

- **Chemical Industry:** Employed in chemical plants for handling chemical raw materials, finished products, and equipment in explosion-proof or corrosion-resistant environments.
- **Mining Industry:** Used in mines for lifting and transporting ores, coal, and mining equipment in the mining and processing processes.

Conclusion

As a core material handling equipment, the **overhead travelling crane** plays an indispensable role in modern industrial production and logistics operations. With a wide range of types, including single girder, double girder, and specialized models, and a host of advantages such as high lifting capacity, large working range, precise control, and customization, it can adapt to the diverse needs of different industries. Whether in light duty workshops or heavy duty industrial sites, the overhead travelling crane is a reliable and efficient solution for improving productivity and reducing operational costs.

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