

# Double Girder EOT Crane: Heavy-Duty Overhead Lifting Equipment for Industrial Efficiency

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## Double Girder EOT Crane: Heavy-Duty Overhead Lifting Equipment for Industrial Efficiency

### What is a Double Girder EOT Crane?

A double girder EOT (Electric Overhead Traveling) crane is a robust, overhead lifting system designed for heavy-duty material handling in industrial environments. Unlike [single girder EOT crane](#), it features two parallel main girders spanning the workspace, supported by end carriages that travel along elevated runways. This structure enables it to handle significantly higher loads—typically ranging from 10 tons to 500 tons or more—making it ideal for demanding lifting tasks where precision, stability, and durability are critical.

Powered by an electric motor, the double girder EOT crane operates via a hoist (mounted on a trolley) that moves along the girders, combined with runway travel for full coverage of the workspace. It is widely recognized as a reliable solution for streamlining operations in factories, warehouses, and heavy industries.

### Key Features of Double Girder EOT Cranes

Double girder EOT cranes stand out for their advanced design and performance, offering the following advantages:

- 1. High Load Capacity:** With two main girders distributing weight evenly, these cranes handle heavier loads (10t–500t+) compared to single girder models, suitable for lifting machinery, steel coils, and large components.
- 2. Enhanced Stability:** The dual-girder structure minimizes deflection during lifting, ensuring stable operation even with maximum loads, reducing the risk of sway or imbalance.

- 3. **Extended Working Range:** The trolley runs along the full length of the girders, while the crane travels along the runway, providing comprehensive coverage of the workspace (customizable span lengths available).
- 4. **Durable Construction:** Made from high-strength steel (Q235B or Q355B), the girders and components resist wear and corrosion, ensuring a long service life (15–20 years with proper maintenance).
- 5. **Customizable Configurations:** Adaptable to specific needs—options include变频 speed control, anti-sway systems, remote control, explosion-proof designs, and specialized hoists (e.g., magnetic, hook, or grab).
- 6. **Efficient Operation:** Electric drives deliver smooth, precise movement (hoist, trolley, and crane travel speeds adjustable), reducing downtime and improving workflow efficiency.

Technical Parameters of Double Girder EOT Crane

| Parameter            | Range/Details                                                               |
|----------------------|-----------------------------------------------------------------------------|
| Rated Load Capacity  | 10t–500t+ (customizable for ultra-heavy loads)                              |
| Span Length          | 10m–35m (longer spans available with structural reinforcement)              |
| Lifting Height       | 6m–30m (adjustable based on workspace height)                               |
| Working Class        | A5–A8 (ISO standard; A8 for continuous heavy-duty operations)               |
| Hoist Speed          | 0.5m/min–10m/min (variable frequency control for smooth speed adjustr       |
| Trolley Travel Speed | 10m/min–40m/min                                                             |
| Crane Travel Speed   | 20m/min–60m/min                                                             |
| Power Supply         | 380V/50Hz (customizable for 220V/60Hz or other voltages)                    |
| Control Mode         | Pendant control, wireless remote control, or cabin control                  |
| Safety Features      | Overload protection, limit switches, emergency stop, anti-collision devices |

Structural Components of Double Girder EOT Crane

A double girder EOT crane consists of several key components working together to ensure reliable lifting:

- 1. **Main Girders:** Two parallel box-type or I-beam steel girders forming the primary load-bearing structure, spanning the workspace.

2. **End Carriages:** Located at both ends of the main girders, equipped with wheels that travel along the runway rails, enabling the crane to move horizontally.
3. **Hoist & Trolley:** The hoist (electric winch with hook, magnet, or grab) is mounted on a trolley, which travels along the main girders via rails, allowing vertical lifting and horizontal movement along the span.
4. **Runway System:** Elevated rails (installed on columns or walls) that guide the crane's end carriages, defining the crane's travel range.
5. **Electrical System:** Includes motors (hoist, trolley, crane travel), control panels, cables, and safety devices (overload sensors, limit switches) to manage power and operations.

## Industry Applications of Double Girder EOT Cranes

Double girder EOT cranes are indispensable in industries requiring heavy lifting and precise material handling:

- **Steel & Metallurgy:** Lifting steel coils, ingots, and forged parts in mills and foundries.
- **Manufacturing:** Moving machinery, molds, and large components in automotive, aerospace, and heavy equipment factories.
- **Warehousing & Logistics:** Loading/unloading heavy cargo, stacking bulk materials in ports, freight yards, and distribution centers.
- **Construction:** Lifting precast concrete, steel beams, and construction machinery on job sites.
- **Energy & Mining:** Handling generators, transformers, and mining equipment in power plants and mines.
- **Shipbuilding:** Assembling ship components and lifting heavy marine equipment.

## FAQs About Double Girder EOT Cranes

### Q1: What's the difference between a double girder and single girder EOT crane?

A: Double girder cranes have two main girders, offering higher load capacity (10t+) and stability, suitable for heavy-duty use. Single girder cranes have one girder, ideal for lighter loads (up to 20t) and smaller workspaces.

### Q2: How often should a double girder EOT crane be maintained?

A: Routine inspections (daily checks for wear, monthly lubrication) and annual professional maintenance are recommended to ensure safety and extend service life.

### Q3: Can double girder EOT cranes be customized for special environments?

A: Yes. Options include explosion-proof designs (for hazardous areas), corrosion-resistant coatings (for chemical plants), and high-temperature resistance (for foundries).

**Q4: What safety standards do double girder EOT cranes comply with?**

A: They adhere to international standards such as ISO, FEM, DIN, and OSHA, with built-in safety features like overload protection and emergency stops.

**Q5: How long does it take to install a double girder EOT crane?**

A: Installation time varies by size and complexity—typically 2–4 weeks for standard models, with longer timelines for custom or large-span systems.

Whether you need to lift heavy machinery in a factory or handle bulk materials in a port, our double girder EOT cranes deliver the strength, precision, and reliability to optimize your operations. Contact us for a custom solution tailored to your needs.

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