

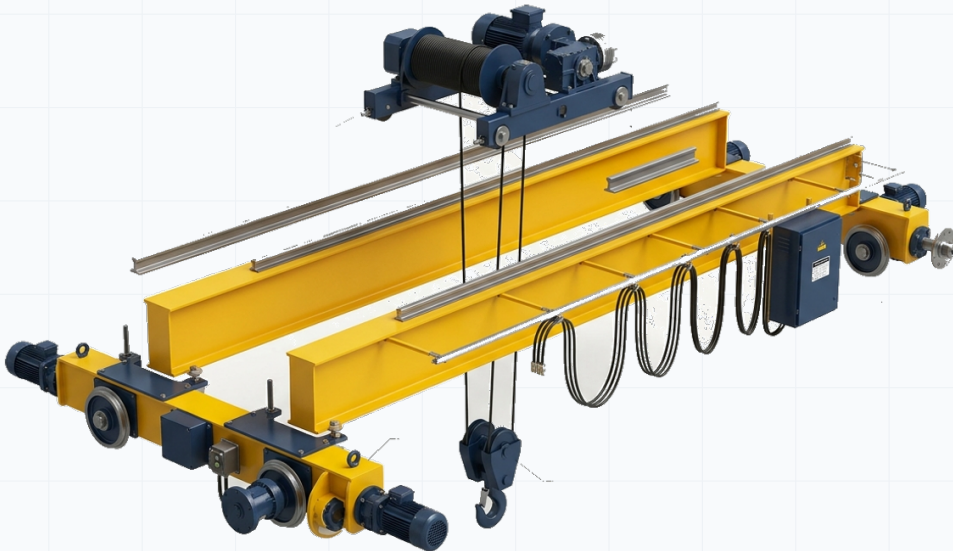
INDUSTRIAL HEAVY-DUTY EQUIPMENT

Rev 2.6 - 2026 Series

# EOT CRANE - DOUBLE GIRDER

MODEL SERIES: INDUCT-EOT-DG-2026 | DOCUMENT: TECHNICAL DATASHEET

3D ISOMETRIC ENGINEERING SCHEMATIC



Engineered & Manufactured in India by Induct Crane System Pvt. Ltd. | Standard: IS 3177 / IS 807 / FEM 2m

CAPACITY RANGE

5 Tons - 100 Tons

SPAN WIDTH

5m - 40m

LIFTING HEIGHT

6m - 30m

DUTY CLASS

FEM 2m/3m | M5-M6

## EXECUTIVE OVERVIEW

Induct Crane Double Girder Overhead Travelling (EOT) Cranes are engineered for severe industrial duty cycles, high lifting capacities up to 100 Tons, and wide spans up to 40 meters. Featuring twin torsion-resistant fabricated box girders, top-running crab trolley hoist, and full-length maintenance walkway platforms, this crane delivers uncompromising stability and longevity.

1. PRODUCT OVERVIEW & DESIGN CHARACTERISTICS

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TYPICAL APPLICATION & PURPOSE

Heavy industrial lifting, steel mills, foundry ladle handling, heavy fabrication, power plants, and turbine halls.

OPERATING ENVIRONMENT

Heavy manufacturing bays, foundries, steel melting shops, forge plants, and power stations (-10 deg C to +55 deg C).

2. STRUCTURAL CONFIGURATIONS & ENGINEERING VARIANTS

DOUBLE GIRDER BOX CONSTRUCTION WITH CRAB TROLLEY (DG)

Heavy-duty twin box girders with top-mounted crab trolley and motorized wire rope hoist for continuous industrial operations.

Capacity: 5 Tons to 100 Tons | Span: 5m to 40m | Lift Height: 6m to 30m

HEAVY-DUTY FOUNDRY / STEEL MILL CLASS (CLASS IV / M6)

Severe-duty twin box bridge with auxiliary hoist (e.g. 50T/10T), heat shields, Class H motors, and operator cabin.

Capacity: 10 Tons to 100 Tons | Span: 10m to 40m | Lift Height: 8m to 30m

3. CODIFIED DESIGN STANDARDS & COMPLIANCE

|                  |                                                                                     |
|------------------|-------------------------------------------------------------------------------------|
| IS 3177: 1999    | Code of Practice for Electric Overhead Travelling Cranes and Gantry Cranes          |
| IS 807: 2006     | Design, Manufacture, Erection and Testing of Cranes and Hoists                      |
| FEM 9.511 / 2m   | Federation Europeenne de la Manutention Rules for the Design of Hoisting Appliances |
| ISO 4301 / M5-M6 | Cranes and Lifting Appliances Classification of Duty Cycles and Mechanisms          |

4. COMPREHENSIVE TECHNICAL SPECIFICATIONS

| ENGINEERING PARAMETER    | MANUFACTURING SPECIFICATION / VALUE RANGE                      |
|--------------------------|----------------------------------------------------------------|
| Lifting Capacity Range   | 5 Tons - 100 Tons (Heavy Duty Industrial Range)                |
| Span Width (m)           | 5m - 40m (Engineered to Building Column Spacing)               |
| Lifting Height (m)       | 6m - 30m (Hook Raised High Between Twin Girders)               |
| Structural Configuration | Twin Welded Box Girders with Top Rail for Crab Trolley         |
| Duty Classification      | FEM 2m / 3m   ISO M5, M6   IS 3177 Class III, IV (Severe Duty) |
| Hoisting Speed           | 3.5 - 8.0 m/min (Dual-Speed Inverter VFD Controlled)           |
| Cross Travel Speed       | 5 - 20 m/min (Top-Running Crab Trolley with VFD)               |
| Long Travel Speed        | 10 - 30 m/min (Synchronized Dual End Bogie Drives)             |
| Power Supply Voltage     | 415V +-10%, 50Hz, 3-Phase AC (Heavy DSL Busbar System)         |
| Control System           | Wireless Radio Remote, Ground Pendant & Operator Cabin Option  |
| Braking System           | Electro-Hydraulic Thruster Brakes & DC Disc Brakes             |
| Maintenance Walkway      | Full-Length Walkway Platform with Handrails & Toe Guards       |
| Hook Block Assembly      | Heavy-Duty Forged Alloy Steel Hook with Thrust Bearing         |
| Auxiliary Hoist Option   | Dual Hoist Configuration (e.g., 20T Main + 5T Auxiliary)       |

5. MAJOR ENGINEERING COMPONENTS & NUMBERED BREAKDOWN

|                                                                                                                                            |                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <div>01</div> <div>TWIN BOX GIRDERS</div> <div>Torsionally-stiff twin box section girders with full-length maintenance walk</div>          | <div>02</div> <div>END CARRIAGES</div> <div>Heavy line-bored hollow rectangular section with spherical roller bearings a</div>             |
| <div>03</div> <div>TOP-RUNNING CRAB HOIST</div> <div>Heavy-duty motorized crab trolley with hardened helical gearboxes and oil-ba</div>    | <div>04</div> <div>LONG TRAVEL DRIVES</div> <div>Dual synchronized drive units with VFD soft-start, planetary gear reducers,</div>         |
| <div>05</div> <div>ELECTRICAL CONTROL SYSTEM</div> <div>IP55 dust/moisture proof master panel with Siemens/Schneider switchgear, PLC</div> | <div>06</div> <div>HEAVY-DUTY WIRE ROPE DRUM</div> <div>Machine-grooved seamless steel drum with anti-slack rope guide and high-safe</div> |
| <div>07</div> <div>FORGED HOOK BLOCK</div> <div>Heavy-duty forged alloy steel shank hook with heavy thrust bearing and sprin</div>         |                                                                                                                                            |

6. APPLICATIONS & INDUSTRIES SERVED

- Steel Plants & Rolling Mills
- Foundries & Forge Shops
- Heavy Machinery Fabrication
- Power Stations & Turbine Halls
- Shipyards & Heavy Assembly Bays

7. SAFETY & PROTECTION SYSTEMS

- [+] Electronic Load Cell Overload Protection with Digital Display
- [+] Rotary Geared Upper/Lower Hoisting Limit Switches
- [+] Optical Anti-Collision Sensors for Tandem Cranes
- [+] Full-Length Maintenance Walkway with Safety Handrails
- [+] Polyurethane & Hydraulic Travel End Buffers
- [+] Audible Siren with Flashing Strobe Beacon

8. ENGINEERING & PROJECT CUSTOMIZATION

- [\*] Auxiliary Hoist Integration: Twin hoist trolley (e.g. 50T Main + 10T Aux) for fast handling of lighter components.
- [\*] High-Temperature Foundry Package: Class H motor insulation, radiant heat shields, and silicon heat-resistant wiring.
- [\*] Operator Cabin Control: Air-conditioned enclosed cabin with ergonomic master joystick console.
- [\*] Tandem Crane Synchronization: Synchronized dual crane operation via wireless optical communication.

9. TECHNICAL & SITE INSTALLATION NOTES

- Double girder design allows the hook to rise between the girders, achieving maximum lift height and hook approach.
- Walkway platforms provide safe, unhindered access for periodic inspection and electrical maintenance.
- Runway rail profiles (CR 80 / CR 100 / ISCR 100) are engineered per civil foundation drawings.

REQUEST A TECHNICAL QUOTATION & GA DRAWING

Contact our application engineering team for site-specific general arrangement (GA) drawings and quotations:

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Contact our engineering team for project-specific technical requirements.