

Overhead Bridge Crane Operation & Maintenance Manual

Standard operating procedures, daily safety inspection checklists, lubrication intervals, and runway rail tolerances for single and double girder bridge cranes.



Equipment Series: Top Running & Under Running Single/Double Girder Overhead Cranes (1t - 300t)

Design & Testing Standards:

- CMAA Specification 70 / 74 (Class A to F)
- CE EN 13001-1 / EN 15011 / ISO 9001:2015
- FEM 1.001 / 9.511 Machinery Directives

Standard Warranty: 24 Months on Core Structure & Hoisting Mechanisms.

Target Audience: Certified Crane Operators, Maintenance Engineers, Plant Safety Directors, and Mechanical Technicians.

1. Pre-Shift Safety & Operational Inspection (Daily Checklist)

Item	Inspection Component	Acceptance Criteria / Safety Action
1.1	Upper Limit Switch	Trip test without load; ensure hook stops smoothly before contacting drum block.
1.2	Wire Rope & Reeving	Inspect for kinks, broken outer strands (max 6 wires in 6d length), corrosion or birdcaging.
1.3	Hook & Safety Latch	Verify latch springs shut; throat opening within 5% of factory spec; 0% twist.
1.4	Holding Brake	Test hold at 100% rated load; brake lining thickness > 3mm, zero slippage or oil contamination.
1.5	Emergency Stop & Pendant	Push E-stop button; verify main contactor drops out instantly and all drives cease.

2. Periodic Preventive Maintenance Schedule (Intervals)

Frequency	Service Task	Lubricant / Specification	Responsible
Monthly	End Truck Gear Pinion Greasing	NLGI Grade 2 Lithium EP Grease	Technician
Monthly	Brake Air Gap Measurement	0.35 mm - 0.50 mm Feeler Gauge	Technician
Quarterly	Hoist Gearbox Oil Sampling	ISO VG 220 / VG 460 Synthetic Gear Oil	Maintenance
Semi-Annual	Runway Rail Alignment & Spacing	±3mm Span Tolerance / Optical Laser	Certified Specialist
Annual	Load Test & NDT Hook Inspection	125% Static / 110% Dynamic Load Test	Third-Party Inspector

3. Factory Spare Parts & Rapid Technical Assistance

SEN Crane 24/7 Global Field Service & Spare Parts Center:

When ordering replacement wire rope, contactor assemblies, motor brake discs, or custom track components, please specify your crane serial number and document code **MAN-CR-01**.

- **Global Engineering WhatsApp:** +86 186 6372 7845
- **Direct Engineering Email:** senintl@163.com
- **Official Web Portal:** <https://darkgrey-pigeon-342653.hostingersite.com>