



Saras Equipments Private Limited



PRODUCTS FOR TOWER CRANE SAFETY

Saras Equipments Private Limited is an ISO-certified manufacturer and a trusted name in crane safety solutions. With years of expertise and a strong focus on innovation, we specialize in designing and delivering advanced safety devices that protect people, machinery, and businesses across industries.

Tower cranes play a vital role in modern construction, but they also face critical safety challenges such as overloading, high winds, collisions, and human error. To address these risks, Saras Equipments offers a complete range of Tower Crane Safety Products.

Our Mission

We, Saras Equipments Private Limited, our mission is to create innovative, reliable, and affordable crane safety solutions that protect lives, prevent accidents, and enhance operational efficiency.

We are dedicated to:

- ✔ Safeguarding people working around cranes
- ✔ Protecting cranes and equipment from damage
- ✔ Supporting businesses with compliance and uninterrupted productivity

By combining technology, expertise, and a commitment to safety, we strive to be a trusted partner in building safer workplaces worldwide.

15
Years of operations

3000
Happy clients

3 Offices around the world

200+
Employees

Tower Crane Safety Products

Tower cranes are the backbone of modern construction — but they also operate in one of the most hazardous environments. Risks such as overloading, strong winds, crane collisions, and human error can lead to accidents, downtime, and costly losses.

We **Saras Equipments Private Limited**, provide advanced Tower Crane Safety Products designed to eliminate these risks and ensure smooth, secure, and compliant operations. Our solutions are trusted by industries for their accuracy, reliability, and durability. With products like Safe Load Indicators, Crane Anemometers, Anti-Collision Devices, A2B Limit Switches, and Human Sensors, we help construction companies build not only safely but also confidently.

with advanced safety solutions

- 👉 *Protect your people.*
- 👉 *Protect your cranes.*
- 👉 *Protect your business.*

[Barkha Gautam](#)

TAILORED SOLUTIONS FOR YOUR TOWER CRANE

We, Saras Equipments Private Limited, understand that every crane, site, and project has unique safety challenges. That's why we provide customized safety solutions designed to match your exact requirements.

Whether it's a tower crane working at extreme heights, an EOT crane in a manufacturing plant, or multiple cranes operating in congested spaces, our team engineers solutions that fit seamlessly into your operations.

- ✅ Customized design and integration
- ✅ Scalable solutions for different crane models
- ✅ On-site installation and technical support
- ✅ Compliance with international safety standards

Products for Tower Cranes Safety

- Safe Load Indicators (SLI / LMI)
- Anti-Collision Devices (ACD)
- Crane Anemometers
- Human Sensors
- Aviation Light (With Solar Energy)

1. SAFE LOAD INDICATOR FOR TOWER CRANE

The Safe Load Indicator (SLI), also known as a Load Moment Indicator (LMI), is a vital safety device for tower cranes. It continuously monitors the crane's lifting conditions to ensure safe operation within rated capacity.

By calculating the relationship between load weight, jib angle, trolley radius, and crane load chart, the SLI provides real-time alerts and protection against overloading or unsafe lifting practices.

The Safe Load Indicator (SLI), also referred to as a Load Moment Indicator (LMI), is a vital safety system for Tower Cranes. It continuously monitors lifting conditions to ensure the crane operates within safe working limits. By calculating the relationship between load, jib angle, trolley radius, and rated capacity, the SLI provides real-time protection against overloading and unsafe lifting practices. Ideal for: High-rise construction projects, congested urban sites, and multi-crane operations where precise load monitoring is critical.



SC112



GI 14



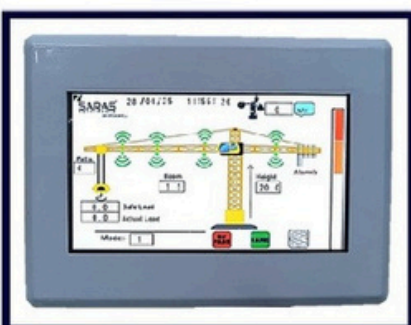
Tension meter



ST 01



Jib Length Box



Aviation Light



Power Supply

Scope of supply

- Display Unit (Digital/Graphical/Touch Screen Display)
- Tension Meter with Load Cell
- Jib Length Box
- Power Supply
- Aviation Light (Optional)
- Anemometer (Optional)

Key Benefits

- Prevents Overloading Accidents
- Enhances Operator Confidence
- Protects Crane & Load Integrity
- Complies with Global Safety Standards
- Digital Logs for Compliance

Technical Specifications

- Power Supply: 24 VDC (18–32 VDC), < 20 W
- Inputs: Load Sensor, Boom Length, Radius, Falls, Mode.
- Outputs: Relay contacts for alarm/interlock; CAN/Modbus (optional)
- Display: 7" or 10" sunlight-readable color display
- Alarm : ≥ 85 dB buzzer, LED beacon
- Ingress Protection: IP65 (display unit), IP67 (sensors)
- Operating Temperature: -20°C to $+70^{\circ}\text{C}$
- Compliance & Safety Standards:
- CE Certified:- ISO Certified

DISPLAY MODEL

A. SC-112 Digital Display



Features:

- Bright Digital LED Display
- Real-Time Load Monitoring
- Audio-Visual Alarms
- Rugged & Durable Design
- Percentage Graph
- Parameters (Safe Load, Actual Load, Boom Length, Radius, Falls, Mode).
- Height (Optional)

B. GI-14 Graphical Display



- Bright Graphical Display
- Real-Time Load Monitoring
- Percentage Graph
- Anemometer Speed (Optional)
- Audio-Visual Alarms
- Rugged & Durable Design
- Parameters (Safe Load, Actual Load, Boom Length, Radius, Falls, Mode).
- Height (Optional)

C. ST01 Touch Screen Display



- Bright Touch Screen Display
- Real-Time Load Monitoring
- Percentage Graph
- Anemometer Speed (Optional)
- Audio-Visual Alarms
- Rugged & Durable Design
- Parameters (Safe Load, Actual Load, Boom Length, Radius, Falls, Mode)
- Height (Optional)

2 Anti-Collision Device (ACD)

The Anti-Collision Device (ACD) is an intelligent safety system that prevents collisions between tower cranes, jib/boom-to-structure impacts, and prohibited zone breaches. Designed for fast retrofit and new installations, the ACD continuously monitors crane positions, motion vectors, and defined geofences to trigger graded warnings and automatic slowdown/stop (when interfaced with the crane drives or SLI/LMI).



Scope of supply

- Display (Touch Screen)
- Processor Unit
- Gear Box
- Angle Sensor
- Power Supply
- Connecting Cable

Features:

- Real-Time Monitoring – Continuous tracking of crane position, movement, and working radius.
- Intelligent Distance Sensors – High-accuracy sensors to detect proximity and prevent unsafe overlaps.
- Audio-Visual Alerts – Instant alarms to warn operators of unsafe conditions or potential collisions.
- Automatic Braking / Motion Cut-Off – Integrated safety function to stop or restrict crane movement during critical situations.
- Multi-Crane Compatibility – Reliable performance even in congested sites with multiple cranes working simultaneously.
- Rugged & Durable Design – Built for construction and industrial environments; weather-resistant and maintenance-friendly.

Technical Specifications

- Working Principle-Microcontroller-based system with radar technology
- Detection Range-Adjustable
- Display Unit-Touch Screen display with real-time crane position monitoring
- Warning System-Audio-Visual Alarms (Hooter)
- Control Action-Automatic braking / motion cut-off when cranes come within set limits
- Communication Mode-Wireless (RF-based up to 100 Meter range)
- Operating Voltage-24V DC / 220V AC (model dependent)
- Protection Level IP65-Weather & dustproof
- Operating Temperature-10°C to +55°C
- Compliance-Meets ISO Standards
- Installation-Suitable for Tower Cranes, Gantry Cranes, and EOT Cranes

Key Benefits

- Prevents Crane-to-Crane Collisions
- Protects Surroundings
- Boosts Productivity
- Fast Retrofit
- Scalable Network
- Supports from 2 to 30+ cranes on a single site, ensuring seamless coordination in complex projects.
- Built-in event logs enable incident review, compliance reporting, and safety audits.

How It Works

- Position & Motion Tracking: Real-time monitoring of slew angle, trolley radius, hook height, and load state.
- Dynamic Safe Envelopes: Calculates separation distances between cranes and compares with user-defined safe zones and no-go areas.
- Smart Alerts & Intervention: Multi-level audio-visual alarms for operators; optional slowdown/stop via relay/inverter interface.
- Site-Wide Coordination: Wireless networking allows cranes to share status, enabling coordinated, conflict-free movement.

3 Anemometer for Tower Crane (Wind Speed Indicator)

An Anemometer is an essential safety device designed to monitor and display real-time wind speed at crane operation height. Sudden gusts and high wind speeds pose serious risks to tower cranes, making it critical for operators to receive accurate and instant wind speed information.

Scope of supply

- Display A02 Wired
- Power Supply
- Fan Sensor
- Cable
- Buzzer

Features:

- Real-Time Wind Speed Display
- High-accuracy measurement for safe crane operation.
- Digital, wireless, and wired versions to suit different site requirements.
- Customizable thresholds to trigger safety alerts at defined wind speeds.
- Rugged & Weather-Resistant Design
- Built to withstand harsh outdoor conditions on construction sites.
- Clear Audio-Visual Alerts
- Instant buzzer and LED signals when wind exceeds safe operating limits.
- Easy Installation
- Compatible with tower cranes, gantry cranes, and mobile cranes for flexible deployment.

Technical Specifications

- Power Supply: 12V / 24V DC and 220V AC
- Testing Range: 0.5 m/s ~ 50 m/s
- Start Wind Speed: ≤ 0.5 m/s
- Accuracy: ± 0.5 m/s (< 5 m/s) ; $\pm 3\%$ FS
- Working Temperature: $-40^{\circ}\text{C} \sim +60^{\circ}\text{C}$
- Limit Wind Speed (Max): 60 m/s for 30 minutes
- Environmental Protection: IP65
- Relay Cut-Off: Yes
- Over-Speed Buzzer: Yes
- Batteries: Not Required
- Fan Box Dimensions (L×H×W): 195 × 62 × 90 mm
- Display Box Dimensions (L×H×W): 160 × 140 × 60 mm
- Wire Range: Up to 100 meters
- Colour: As per image (may vary 2%)



4 Ultrasonic Object Detector / Human Sensor

The **Ultrasonic Object Detection/ Human Sensor** is a combined crane safety solution designed to prevent accidents involving both **human proximity hazards** and **crane-to-crane/jib collisions**. It enhances overall site safety by detecting workers in dangerous zones and avoiding collisions between cranes, structures, and restricted areas.



Key Safety Benefits

- Prevents Worker Accidents
- Protects ground personnel working near crane operations.
- Reduces Risk of Struck-By Incidents
- Early detection and alerts minimize collision hazards.
- Enhances Operator Awareness
- Covers blind spots and improves decision-making during lifts.
- Ensures Safety Compliance
- Meets modern site safety norms and regulatory requirements.

Features:

- Advanced Motion & Proximity Detection
- High-precision sensing to detect obstacles and unsafe proximity in real time.
- Audio-Visual Alarms
- Alerts both the operator and ground personnel to prevent accidents.
- Adjustable Sensing Range
- Flexible configuration to suit different crane types and site conditions.
- Rugged & Weather-Resistant Design
- Built to withstand dust, rain, and harsh industrial environments.
- Seamless Integration
- Easily connects with existing crane safety systems (ACD / SLI) for automatic safety actions.

Technical Specifications

- Technology: Ultrasonic object detection
- Detection Range: Adjustable (as per site requirement)
- Accuracy: $\pm 3\%$ of full scale
- Sensing Angle: 90° (typical)
- Alerts: Audio-visual alerts (optional hooter)
- Power Supply: 12V / 24V DC
- Operating Temperature: $-20^\circ\text{C} \sim +55^\circ\text{C}$
- Protection Class: IP65 – Dustproof & weatherproof
- Housing Material: Industrial-grade ABS / Aluminium Alloy
- Mounting Options: Adjustable brackets for crane booms, cabins, or structures
- Interface: Compatible with ACD / SLI systems for automatic safety action

5 Solar Aviation Light

The **Aviation Light** is a mandatory safety device for **tower cranes, high-rise structures, and tall equipment** to ensure visibility for low-flying aircraft. It provides bright, reliable illumination at the top of the crane to meet aviation authority regulations. Designed for rugged outdoor use, it ensures uninterrupted operation in harsh construction environments.

Ideal for: Tower Cranes, High-Rise Buildings under construction, Wind Turbines, and Industrial Structures exceeding aviation height limits.



Technical Specifications

- Light Source: High-intensity LEDs (Red / White – ICAO & FAA compliant)
- Visibility Range: Up to 3–5 km (depending on model)
- Operating Mode: Steady / Flashing
- Solar Panel: High-efficiency Monocrystalline / Polycrystalline panel
- Battery Type: Inbuilt rechargeable Lithium / NiMH battery
- Battery Backup: 3–5 nights without sunlight
- Charging Time: 6–8 hours under sunlight
- Operating Voltage: 3.7V / 6V / 12V (model-dependent)
- Automatic Control: Dusk-to-Dawn sensor for auto ON/OFF
- Ingress Protection: IP65 / IP66 – Dustproof & weatherproof
- Material: UV-stabilized Polycarbonate / Aluminium Alloy housing
- Operating Temperature: –20 °C to +55 °C
- Mounting Options: Pole mount / Bracket mount
- Compliance: ICAO Type A & B (Low Intensity) / FAA standards

Key Features

- High-Intensity Illumination
- Ensures crane visibility during night operations and low-visibility conditions.
- LED-Based Design
- Long service life ($\geq 50,000$ hours) with low power consumption.
- Automatic Day/Night Sensor
- Smart dusk-to-dawn operation for energy efficiency.
- Weatherproof Construction
- IP66-rated housing, reliable in harsh outdoor environments.
- Low Maintenance
- Solid-state electronics with minimal servicing requirements.
- Redundant Options
- Dual-light design available for extra reliability and compliance with aviation norms.

OUR SERVICES

We, Saras Equipments Private Limited, don't just provide safety products – we deliver end-to-end solutions that ensure reliable, long-lasting performance for every crane.

What We Offer:

- Product Design & Customization
- Tailored safety solutions to suit specific crane types, load capacities, and site conditions.
- Installation & Commissioning
- Professional on-site installation with complete calibration and testing for reliable performance.
- Training & Support
- Hands-on training for operators and maintenance teams to ensure safe and efficient usage.
- After-Sales Service
- Dedicated support team providing quick assistance, spare parts, and timely maintenance.
- Annual Maintenance Contracts (AMC)
- Comprehensive preventive maintenance packages to keep crane safety systems running flawlessly.

PRODUCT RANGE

Our comprehensive range of crane safety devices is designed to ensure maximum protection, reliability, and efficiency across every lifting operation

- Crane Safe Load Indicators (SLIs) Digital, Graphical, Touch Screen
- Load Moment Indicators (LMI)
- Anti-Two Block Limit Switch
- Custom Crane Safety Solutions
- Crane Anemometers
- Load Cells
- Overload Protection Device
- Rear View Camera
- Biometric Sensor Access Device
- Spring Operated Cable Reeling Drum
- Load Moment Indicator (LMI) for Boom Lift, Scissor Lift Etc.
- SMPS
- Aviation Light
- Solar Aviation Light
- Buzzer
- Anti-Collision Device
- Human Sensor
- Auto Cut Off System
- LED Board

Value Clients Can Expect

			
Enhanced Safety Advanced crane safety devices designed to prevent accidents and protect people, equipment, and projects.	Tailored Solutions Customized safety systems to meet the unique requirements of every crane and worksite.	Reliable Performance ISO-certified products manufactured with precision, ensuring durability and consistent accuracy.	Long-Term Partnership Dedicated after-sales support, regular maintenance, and upgrade options for lasting value.

OUR WORKS



Why Choose Saras Equipments Private Limited

- ISO-Certified Manufacturer
- Trusted for globally compliant safety systems.
- Proven Expertise
- Years of experience in advanced crane safety solutions.
- Integrated Safety Packages
- Complete solutions including SLI, Anti-Collision Devices, and Anemometers.
- End-to-End Support
- On-site service, operator training, and reliable spare parts availability.

MEET OUR CLIENTS



We are proud to partner with leading companies across construction, infrastructure, and industrial sectors. Our crane safety systems are trusted by:

- **Top Construction Companies** – Ensuring safe lifting operations at high-rise and infrastructure projects.
- **Crane Manufacturers & Suppliers** – Integrating advanced safety features in tower and mobile cranes.
- **Industrial Plants & Ports** – Enhancing operational safety in heavy-duty environments.
- **Government & EPC Contractors** – Supporting compliance with national and international safety standards.



Our Exports Customer



GOT QUESTIONS?

Answers to Common Inquiries

Are your devices suitable for all cranes?

Yes, we provide universal and customized solutions.

Do your products meet standards?

Yes, we are ISO-certified and follow global safety norms.

How reliable are your monitoring systems?

Each device is tested & calibrated to ensure real-time, highly accurate data.

Do you provide installation & training?

Yes, by our expert engineers with on-site support.

Do your products meet international standards?

Yes. All our products are ISO-certified and undergo strict quality checks.

Do you offer after-sales service?

Yes, we provide dedicated support, maintenance, and upgrades.

LET'S GET STARTED

Connect With Us Today



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