

CREW DETAILS

IN AN EMERGENCY CALL:

Crew Leader:	Project Phone Number:
Crew:	

PROJECT OVERVIEW

Purpose of Project:	Date of Project:
<p>Benefit of Project: Enhances precision in material placement and assembly. Ensures safe handling and movement of heavy materials. Improves overall project timelines and productivity. Increases operational efficiency and reduces downtime. Minimizes the risk of accidents and equipment damage. Supports large-scale construction projects with ease.</p>	

HAZARDS

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Fatigue among operators	Operator errors, delayed reactions, accidents	Enhances operator focus and alertness, reducing mistakes and improving safety.	Implement rotational shift patterns to prevent overwork. Enforce mandatory breaks and provide ergonomic seating in crane cabins. Monitor operators for signs of fatigue and ensure hydration and nutrition support during long shifts. (ALL)	Operators	Before Measure: High After Measure: Med
Lack of emergency preparedness	Injuries, operational delays, increased risks during incidents	Enables a swift and effective response to emergencies, reducing potential harm or downtime.	Develop site-specific emergency response plans and ensure all personnel are trained in them. Conduct regular drills for scenarios like load drops, equipment failures, or severe weather. Equip the site with first-aid kits, fire extinguishers, and communication tools. (ALL)	All personnel on-site	Before Measure: High After Measure: Med

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Poor weather conditions	High wind accidents, equipment instability, reduced visibility	Facilitates adherence to tight schedules by allowing operations during manageable weather conditions.	Monitor weather conditions using reliable forecasting tools. Halt operations during high winds, rain, or thunderstorms. Use wind speed indicators and provide sheltered areas for crew safety. (ALL)	Operators, ground crew	Before Measure: High After Measure: Med
Blind spots during operation	Collisions, equipment damage, injuries	Reduces the likelihood of accidents, enhancing safety for all on-site personnel.	Install cameras and mirrors on cranes to expand the operator's field of view. Designate spotters to monitor blind spots and guide the operator. Mark blind spots clearly on the ground, and restrict personnel access during lifts. (ALL)	Operators, ground crew	Before Measure: High After Measure: Low
Communication failures	Missed instructions, operational delays, accidents	Improves coordination and reduces delays, ensuring smooth operation of lifts and other activities.	Provide all team members with reliable two-way radios and ensure they are fully charged before each shift. Standardize hand signals and train personnel in their use. Conduct pre-shift communication checks and appoint a communication leader to relay critical updates. (ALL)	Operators, ground crew	Before Measure: Med After Measure: Low
Confined spaces for crane setup	Restricted movement, increased collision risks, operational delays	Expands operational capabilities in urban or heavily developed areas.	Use compact or mobile cranes specifically designed for tight spaces. Perform a detailed site analysis to determine optimal setup locations. Install mirrors, cameras, and sensors to assist with maneuvering in restricted areas. (ALL)	Operators, ground crew	Before Measure: High After Measure: Low
Dropped loads	Personnel injuries, equipment damage, material losses	Reduces risks to personnel and ensures safe delivery of materials without damage.	Inspect lifting gear, hooks, and slings for wear or damage before every lift. Use backup securing systems like safety nets where possible. Avoid lifting over personnel, and ensure the load is balanced and properly rigged. (ALL)	Operators, ground crew	Before Measure: High After Measure: Low

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Electrical hazards from overhead power lines	Electrocution, equipment damage, site disruptions	Facilitates work in urban or developed areas where overhead lines are common.	Identify all power lines in proximity during site planning. De-energize or shield lines where possible. Maintain minimum clearances and use dedicated spotters to guide crane movements. (ALL)	Operators, ground crew	Before Measure: High After Measure: Low
Equipment collisions	Operational delays, equipment damage, injuries	Minimizes equipment damage and operational delays, maintaining productivity.	Establish clear paths and zones for crane and equipment movement. Use spotters and visual aids like barriers or cones to guide operations. Equip cranes with collision-avoidance systems, such as sensors or alarms, to detect nearby obstacles. (ALL)	Operators, ground crew	Before Measure: High After Measure: Low
Failure to follow lift plans	Operational delays, equipment misuse, accidents	Ensures smooth and safe lifting operations, minimizing disruptions and errors.	Develop detailed and site-specific lift plans, including load charts, crane positioning, and task sequencing. Conduct pre-lift meetings to review the plan and assign responsibilities. Update plans as necessary to accommodate changing conditions. (ALL)	Operators, ground crew	Before Measure: High After Measure: Low
First aid availability	Delayed injury response, worsening conditions, legal non-compliance	Enables prompt response to injuries, minimizing severity and preventing escalation of minor incidents.	Ensure a first-aid kit is readily accessible and stocked with supplies appropriate for crane operations and construction environments. Designate trained first-aid responders on-site and provide contact information for emergency medical services. Conduct regular checks on kit supplies and expiry dates. (ALL)	All personnel on-site	Before Measure: Med After Measure: Low

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Hazardous materials nearby	Toxic exposure, fire risks, increased injury rates	Allows safe operations in environments containing hazardous substances, enabling diverse project scopes.	Identify hazardous materials in proximity during the planning stage. Create buffer zones and enforce strict no-entry rules around hazardous areas. Provide PPE specific to the materials present, such as respirators for toxic fumes. (ALL)	Operators, ground crew	Before Measure: High After Measure: Low
Improper crane setup	Structural failure, equipment tipping, delayed operations	Ensures stable and reliable operation, minimizing the risk of structural failure or tipping.	Adhere to the manufacturer's setup instructions, including base leveling and counterweight placement. Use qualified technicians for assembly and conduct load tests before starting operations. Inspect the setup regularly for stability and compliance. (ALL)	Operators, setup crew	Before Measure: High After Measure: Low
Improper rigging of loads	Load shifts, dropped materials, structural damage	Allows safe lifting of irregular or heavy loads, enabling more versatile construction designs.	Employ certified rigging professionals to inspect and manage the setup. Use standardized rigging plans and inspect all lifting gear for wear or damage before every use. (ALL)	Rigging crew, operators	Before Measure: High After Measure: Low
Improper signaling	Confusion, operational delays, increased accidents	Enhances coordination between the operator and ground crew, improving operational efficiency and safety.	Train all team members on standardized hand signals and radio protocols. Designate a lead signaler for each operation to avoid confusion. Conduct pre-lift briefings to confirm communication protocols and responsibilities. (ALL)	Operators, ground crew	Before Measure: Med After Measure: Low
Improper use of personal protective equipment (PPE)	Injuries, non-compliance penalties, increased accidents	Reduces the likelihood of injuries and ensures compliance with health and safety regulations.	Conduct mandatory PPE training and provide equipment such as hard hats, gloves, safety boots, and high-visibility vests. Perform regular inspections to ensure equipment is in good condition and enforce strict compliance with PPE use on-site. (ALL)	Operators, ground crew	Before Measure: Med After Measure: Low

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Inadequate ground conditions	Ground collapse, unstable base, equipment tipping	Enables the crane to operate in diverse terrains, expanding project possibilities and operational flexibility.	Conduct soil tests and geotechnical surveys to assess ground stability. Use crane mats or steel plates for ground reinforcement, especially in soft or uneven areas. Ensure the site is cleared of debris to provide a stable base for the crane. (ALL)	Operators, ground crew	Before Measure: High After Measure: Low
Inadequate lighting	Reduced visibility, operational errors, increased accidents	Enhances visibility for safe operations, allowing work to continue during early mornings or evenings.	Install portable floodlights and fixed lighting systems in key operational areas. Use lighting with anti-glare covers to prevent blinding operators. Conduct site surveys during low-light conditions to identify and address dark spots. (ALL)	Operators, ground crew	Before Measure: Med After Measure: Low
Inadequate load securing	Load shifts, dropped materials, operational delays	Prevents load shifts and falls, ensuring materials are delivered intact and safely.	Select proper securing equipment like slings, straps, and chains rated for the load's weight and shape. Double-check all securing points for tightness and integrity before lifting. Train riggers in advanced securing techniques for irregular loads. (ALL)	Operators, rigging crew	Before Measure: High After Measure: Low
Inadequate operator training	Operator errors, equipment misuse, accidents	Ensures skilled handling of complex operations, increasing productivity and reducing the chance of delays.	Provide thorough certification and ongoing training for crane operators, including specific training for the model in use. Conduct periodic competency reviews and refresher courses. (ALL)	Operators	Before Measure: High After Measure: Low
Mechanical failures	Equipment breakdowns, operational delays, accidents	Ensures reliability and prevents downtime, keeping projects on track.	Implement a proactive maintenance schedule aligned with the manufacturer's recommendations. Regularly inspect all mechanical systems, including hydraulics, brakes, and controls, to detect and repair faults early. (ALL)	Operators, maintenance crew	Before Measure: High After Measure: Low

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Noise hazards	Hearing damage, reduced communication, safety risks	Ensures compliance with health standards while maintaining a safer, more comfortable working environment.	Use noise-dampening equipment where possible and ensure operators and crew wear hearing protection like earplugs or earmuffs. Monitor noise levels regularly with decibel meters and schedule breaks to limit prolonged exposure. (ALL)	Operators, ground crew	Before Measure: Med After Measure: Low
Overhead obstructions	Collisions, equipment damage, operational delays	Prevents damage to the crane and ensures smooth lifting in environments with limited overhead space.	Perform a site survey to identify overhead hazards such as branches, signs, or low ceilings. Plan crane movements to avoid obstructions and trim or remove overhead hazards where necessary. Use spotters to monitor the crane's height clearance during lifts. (ALL)	Operators, ground crew	Before Measure: High After Measure: Low
Overloading the crane	Crane structural failure, dropped loads, equipment damage	Improves efficiency by maximizing crane capabilities, reducing the number of lifts required for heavy loads.	Use load-monitoring systems and ensure all operators are trained to calculate and adhere to weight limits. Pre-plan lifting operations and check load weights against the crane's capacity. (ALL)	Operators, ground crew	Before Measure: High After Measure: Low
Proximity to other equipment or structures	Collisions, equipment damage, structural risks	Allows efficient operation in constrained or complex environments without risking collisions.	Perform a detailed site survey to identify potential obstructions. Plan crane movements to avoid clashes with nearby equipment or buildings. Use spotters and flaggers to guide the crane in tight spaces. (ALL)	Operators, ground crew	Before Measure: High After Measure: Low
Swing radius hazards	Personnel injuries, collisions, equipment damage	Minimizes risks to personnel while enabling efficient crane operation in confined spaces.	Mark the crane's swing radius with bright, visible barriers. Use warning signs and restrict access to these zones during operation. Provide training to workers on staying outside the swing radius. (ALL)	Ground crew, operators	Before Measure: High After Measure: Low

HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Unauthorized personnel in work zones	Accidents, operational disruptions, injuries	Promotes safer operations by minimizing interference from non-essential personnel.	Enforce access restrictions with barriers, clear signage, and trained site marshals. Conduct daily safety briefings to inform all on-site personnel about restricted areas. Use on-site security during off-hours to prevent unauthorized entry. (ALL)	Site personnel, visitors	Before Measure: High After Measure: Low
Unclear site responsibilities	Confusion, delays, safety risks	Reduces confusion and enhances teamwork, allowing operations to proceed efficiently.	Develop a clear site hierarchy with assigned roles and responsibilities for crane operations. Conduct daily briefings to ensure all personnel understand their tasks. Create a single point of contact for decision-making and problem-solving. (ALL)	All personnel on-site	Before Measure: Med After Measure: Low
Unsafe structures near crane operations	Collapse risks, structural damage, increased hazards	Allows operations to proceed safely in areas with older or partially constructed buildings, expanding project possibilities.	Inspect nearby structures for stability before commencing crane operations. Reinforce or isolate weak or damaged structures to prevent collapse. Use sensors or vibration monitors to detect movement in unstable structures during lifting operations. (ALL)	Operators, nearby personnel	Before Measure: High After Measure: Low
Unstable loads	Load tipping, dropped materials, structural damage	Allows precise and safe lifting of materials, improving efficiency and reducing rework.	Conduct load stability assessments before each lift. Use taglines to control load movement and prevent swinging. Inspect all rigging equipment for defects and ensure it is suited to the load's size, shape, and weight distribution. (ALL)	Operators, ground crew	Before Measure: High After Measure: Low
Unpredicted risks	Illness, injury, death		Continuous risk monitoring conducted by all staff. Any unforeseen hazards must be reported promptly to supervisors or management, with immediate corrective action taken as necessary. (ALL)	All	N/A

NOTES

Extra notes & activity evaluation:

Completed by

Reviewed/Approved by

Risk Assessment Date

Review Required Date