

Tower Crane Daily Operator Inspection Checklist

Site / Project	_____	Address	_____
Inspector name	_____	Company	_____
Date	_____	Time	_____

Documentation aid only. Adapt this resource to the site, manufacturer instructions, and applicable local requirements. It does not replace a competent person, professional judgment, legal advice, or a required statutory form.

Inspection checklist

Structural Components

☐	Verify all mast bolts are present, tightened to the manufacturer's specified torque, and show no signs of corrosion or damage. Use calibrated torque wrench.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Inspect the slewing ring for cracks, excessive wear, or loose bolts. Check lubrication levels and ensure proper function.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Examine all jib sections for any signs of bending, buckling, or weld cracks. Pay close attention to connection points.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Confirm that all counterweights are securely attached and properly positioned according to the crane's load chart. Verify locking mechanisms are engaged.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Using a level, verify the tower is plumb and within the manufacturer's specified tolerance. Note any deviations.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Inspect all tie-in supports to the building structure for proper attachment and condition. Ensure no signs of stress or damage.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Visually inspect the crane's foundation for any signs of cracking, settling, or water damage. Report any concerns to the site engineer.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Inspect the access ladder for damaged rungs, loose connections, and proper fall protection (if applicable).	☐ Pass	☐ Fail	☐ N/A	Notes: _____

☐	Verify the crane is in weather-vaning mode when out of service and that the slewing brake is released.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
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☐	Confirm that all lubrication points are adequately greased according to the manufacturer's recommendations.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
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Wire Rope and Hoisting System

☐	Measure the wire rope diameter at multiple points to check for wear and ensure it meets the minimum allowable diameter specified by the manufacturer. Document measurements.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
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☐	Inspect the wire rope for signs of birdcaging, kinking, crushing, or unstranding. Replace if any of these conditions are present.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
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☐	Examine the wire rope for corrosion, especially at points where it passes over sheaves or drums. Note the severity and location of any corrosion.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
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☐	Inspect the hoist drum grooving for wear or damage that could cause the wire rope to spool unevenly. Ensure proper alignment.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
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☐	Verify that all sheaves are free to rotate and are properly lubricated. Check for cracks, chips, or excessive wear.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
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☐	Inspect the hook latch for proper function and ensure it securely closes. Replace if damaged or missing.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
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☐	Check the hook for any signs of deformation, cracks, or wear. Use a calibrated gauge to measure the throat opening.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
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☐	Confirm that the wire rope is properly reeved according to the crane's load chart and reeving diagram.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
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☐	Inspect rope terminations (e.g., swaged sockets, clips) for proper installation and condition. Ensure they are free from corrosion and damage.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
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☐	Inspect the load block for any signs of damage, including cracks, deformation, or excessive wear. Check the condition of the bearings.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
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Operational Controls and Safety Devices

☐	Verify the Load Moment Indicator (LMI) is functioning correctly by performing a test lift with a known weight. Compare the LMI reading to the actual load.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
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☐	Test the Anti-Two-Block (ATB) system to ensure it activates before the hook block comes into contact with the boom tip. Confirm audible and visual alarms are functional.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Test the hoist brake by lifting a load slightly off the ground and observing for any slippage. The brake should hold the load securely.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Test the trolley brake (if applicable) to ensure it stops the trolley smoothly and prevents uncontrolled movement.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Test the slewing brake to ensure it stops the crane's rotation smoothly and prevents uncontrolled slewing.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify that all limit switches (e.g., hoist limit, trolley limit, slewing limit) are functioning correctly and prevent movement beyond safe limits.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Check the wind speed indicator (anemometer) and ensure it is functioning properly. Know the crane's maximum allowable wind speed.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Inspect all control levers for smooth operation and proper return to neutral. Ensure they are clearly labeled.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Test the emergency stop button to ensure it immediately shuts down all crane functions.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify the crane's horn or audible warning device is functioning properly.	☐ Pass	☐ Fail	☐ N/A	Notes: _____

Documentation and Communication

☐	Ensure the crane's load chart is readily available and legible to the operator.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Review the crane's inspection records to verify that all required inspections have been performed and documented.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify that the crane operator is certified or qualified to operate the specific type of crane.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	If a signal person is required, verify that they are qualified and understand the hand signals being used.	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Ensure that a reliable communication system (e.g., radio, hand signals) is in place between the operator and signal person (if applicable).	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Review the site hazard assessment to identify any potential hazards that could affect crane operations (e.g., power lines, underground utilities).	☐ Pass	☐ Fail	☐ N/A	Notes: _____

☐ Review the lift plan (if required) to ensure it addresses all critical aspects of the lift, including load weight, rigging, and crane configuration. ☐ Pass ☐ Fail ☐ N/A Notes: _____

☐ Ensure the daily inspection log is completed accurately and any defects are reported immediately. ☐ Pass ☐ Fail ☐ N/A Notes: _____

Findings

#	Item	Location	Severity	Action required
1				
2				
3				
4				
5				
6				
7				
8				

Signature

Inspector signature _____

Name _____

Date _____