

National Craft Assessment and Certification Program
SPECIFICATIONS
PILOT TESTING ONLY



Tower Crane

Updated April 2025

Focus Statement

This written assessment evaluates whether a candidate possesses the minimum knowledge and understanding required to safely operate a Tower crane in compliance with ASME B30.3, B30.29 and OSHA 1926.1400. A minimally competent operator must demonstrate the ability to:

- Identify and interpret key sections of load charts, including rated capacities and configuration limits.
- Recognize required pre-operational inspections and identify equipment or site-related hazards.
- Understand operational limits related to ground conditions, weather, and proximity to power lines.
- Select appropriate signaling methods and recognize standard hand and voice communication protocols.
- Apply regulatory safety principles to hypothetical scenarios involving lift planning, crane setup, and emergency procedures.

Overview

- Three-hour closed-book examination
- May use a basic function, non-printing calculator
- No extra papers, books, notes or study materials are allowed
- The following load charts below will be measured in this assessment (*as available item content allows*):
 - Liebherr 316 EC H12
 - Comansa LCL 500
 - Potain IGO 36

The minimum passing score is 86

Practical Examination

A corresponding hands-on Practical Examination is available.

Assessment Development

All questions are developed and approved by subject matter experts under the direction of NCCER.

Score Report

Each candidate will have online access through their NCCER Account to their assessment results including their overall score and pass or training recommended status.

NCCER

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Written Assessment Contents:

Content Domains		Number of Questions
<i>Topic Areas</i>		
General Knowledge and Safety		4
Regulatory Standards		
Site Preparation and Crane Installation		
General Safety Procedures		
Crane Set-up and Assembly		4
Assembly of crane		
Operational Components		
Control Systems		
Safety Devices and Operational Aids		11
Safety Devices		
Operational Aids		
Inspection, Testing, and Maintenance		16
Inspection Types		
Testing Procedures		
Maintenance		
Rope Inspection and Maintenance		

Crane Operations	26
Crane Function Controls	
Load Handling	
Traveling Procedures	
Erecting and Climbing	
Load Charts	
Hammerhead	
Luffer	
Self-Erecting	
Emergency Response	5
Standard Signals	5
Verify Load and Rigging Weights	4
Total Number of Items	75