

Self-Erecting Tower Crane Setup Checklist

Pre-Setup Site Assessment and Planning

Site Evaluation

- Analyze ground conditions
 - Check soil type
 - Verify ground stability
- Assess overhead obstructions
 - Check for power lines
 - Identify potential structural blockages
- Identify utility lines
 - Locate underground utilities
 - Mark utility locations

Documentation and Permits

- Obtain local authority permits
- Verify OSHA compliance documents
- Create site-specific setup plans
- Confirm insurance coverage

Ground Preparation and Foundation

Foundation Specifications

- Perform load bearing calculations
- Level surface completely
- Meet local soil compaction standards

Support System Installation

- Place outrigger pads for weight distribution
- Prepare mat foundation if needed
- Ensure proper pressure distribution

Pre-Assembly Safety Protocols

Personnel Requirements

- Verify operator certifications are current
- Check assembly team qualifications
- Assign safety officer for oversight

Equipment Verification

- Inspect all crane components
- Test all safety devices
- Take complete inventory of tools and equipment

Assembly Procedure

Initial Setup

- Position base unit according to site plan
- Connect power system
- Test power connections
- Verify control system functionality

Tower and Jib Assembly

- Erect tower sections sequentially
- Secure each tower section before next installation
- Attach jib according to manufacturer instructions

- Install and test cables and pulleys

Counterweight Installation

- Verify counterweight calculations
- Install counterweights in correct order
- Confirm crane's center of gravity is within safe limits

Testing and Commissioning

Load Testing

- Perform no-load testing
- Conduct progressive load tests
- Verify all emergency systems

Operational Verification

- Test motion controls (lifting, lowering, swinging)
- Verify limit switch functionality
- Check communication systems

Final Documentation

Inspection Documentation

- Complete setup certification
- Prepare safety inspection records
- Compile testing documentation

Operator Briefing

- Provide site-specific instructions
- Review emergency procedures
- Establish communication protocols

Final Safety Checklist

- Confirm all steps completed
- Ensure all safety protocols followed
- Verify operator readiness
- Obtain final sign-off from safety officer

Note: Always prioritize safety. When in doubt, consult a professional.