

Tower crane jib assembly and dismantling - JSA - B

en-SG · Technical failure review · v1.0 · 2026-10-14 · Sources: article section 9

Site: _____ | Item ID: _____ | Work area: _____

Approval	Work supervisor	Technical reviewer	Release / handover authority

1. Job details and team signatures

Date / time	Location / area			Assessor		Supervisor	
Team signatures							

2. Conditions and hold points

Stage	Time	Location / area	Environment / readings	Item / condition	Controls	Plant / tools	Approval / signature
HP-0 Start							
HP-1 Set assist crane							
HP-2 Lift and connect							
HP-3 Transfer support							
HP-4 Dismantle safely							

Complete after actual checks. Recheck after changes, defects or shift handover.

3. JSA risk assessment

Job stage	Hazards and effects	Failure factors	Technical and procedural controls	Site verification	P	S	R	A
1. Set assist crane	1. Load overload 2. Boom collision 3. Public struck	1. Wrong radius 2. Hidden services 3. Open lift path	1. Check chart and load 2. Plan clearances 3. Exclude work zone	1. Duty chart 2. Route clearance 3. Wind conditions				
2. Build on supports	1. Pin failure 2. Hand trapping 3. Pendant falls	1. Damaged pin 2. Hand in joint 3. Loose attachment	1. Inspect correct parts 2. Use safe alignment 3. Secure attachments	1. Pins and retainers 2. Tool method 3. Part condition				
3. Lift and connect	1. Root crushing 2. Worker fall 3. Crane clash	1. Poor signal 2. Unsafe access 3. Unplanned path	1. Coordinate signals 2. Provide safe access 3. Check swept path	1. Crew position 2. Access and rescue 3. Root connection				
4. Transfer support	1. Pin release injury 2. Rigging slips 3. Tool strikes	1. Retainer missing 2. Abrupt lowering 3. Loose hardware	1. Fit specified locks 2. Transfer as instructed 3. Secure loose items	1. Connection locks 2. Release decision 3. People clear				
5. Control ballast	1. Block drops 2. Tray damage 3. Unexpected slew	1. Damaged lifting point 2. Impact landing 3. Wrong restraint	1. Inspect lifting points 2. Seat and secure blocks 3. Use specified restraint	1. Stage position 2. Block retention 3. Slew arrangement				
6. Dismantle safely	1. Pin ejects 2. Section rolls 3. Crew struck	1. Bound connection 2. Poor landing support 3. Crew under section	1. Confirm support first 2. Prepare landing stands 3. Keep people clear	1. Pin release state 2. Landing supports 3. Section secured				

P/S/R/A: Complete only after actual site assessment using the site risk method.

4. Pre-work checklist

☐ Duty chart	☐ Pins and retainers	☐ Crew position
☐ Connection locks	☐ Stage position	☐ Pin release state
☐ Wind conditions	☐ People clear	☐ Section secured