

Boiler Lifting and Positioning - JSA - C

en-SG · Supervision, records, handover · 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 Prepare lift area							
HP-2 Trial lift and move							
HP-3 Secure and release							
HP-4 Hand over							

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. Owner and lift basis	1. Wrong shipping load 2. Unsuitable boiler location 3. Registration interface missed	1. Accessories omitted 2. Room layout not checked 3. Owner duties unassigned	1. Confirm actual configuration 2. Coordinate room and support layout 3. Identify owner and AE interface	1. Mass CG and lift points 2. Foundation and room layout 3. Owner examination requirements				
2. Lifting readiness	1. Crane overturn 2. Service collision 3. Dropped boiler	1. Ground reaction unknown 2. Route clearance omitted 3. Rigging point unsuitable	1. Review lift plan and support 2. Verify full travel route 3. Inspect designated lifting points	1. Crane ground and route 2. Rigging and lug evidence 3. Team and signals				
3. Landing acceptance	1. Saddle overload 2. Boiler movement 3. Crushed hands	1. Contact gap remains 2. Bearing location wrong 3. Manual guiding in gap	1. Use planned landing supports 2. Verify each saddle contact 3. Keep hands outside pinch zone	1. Support and contact record 2. Level and position survey 3. Gap correction method				
4. Mechanical release	1. Sudden load transfer 2. Thermal restraint 3. Grout crushing	1. Unhooking premature 2. Sliding end fixed 3. Strength unverified	1. Verify designed restraint 2. Preserve movement function 3. Release against support evidence	1. Anchor and sliding details 2. Grout strength acceptance 3. Unhooking authority				
5. Defect control	1. Unstable relift 2. Shell distortion 3. Repeated settlement	1. Anchors force alignment 2. Recovery not planned 3. Cause not resolved	1. Secure and exclude danger zone 2. Obtain designed correction 3. Reinspect restored load path	1. Defect and current load state 2. Recovery and correction plan 3. Repeated support inspection				
6. Installation transfer	1. Premature firing 2. Nozzle overload 3. Open defect concealed	1. Placement called approval 2. Piping loads unreviewed 3. Owner records incomplete	1. Issue scoped mechanical handover 2. Transfer movement and load limits 3. Keep first-use release separate	1. Survey anchor and grout 2. Owner and AE interface holds 3. Connection and firing limits				

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

4. Pre-work checklist

☐ Mass CG and lift points	☐ Crane ground and route	☐ Support and contact record
☐ Anchor and sliding details	☐ Defect and current load state	☐ Survey anchor and grout
☐ Owner examination requirements	☐ Unhooking authority	☐ Connection and firing limits