

Steel deck shear stud welding - 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 Confirm combination							
HP-2 Prepare fire area							
HP-3 Prepare and test							
HP-4 Release for concrete							

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. Prepare fire area	1. Arc exposure 2. Edge fall 3. Fume exposure	1. Screen absent 2. Opening unprotected 3. Ventilation changed	1. Screen neighbouring trades 2. Protect edges and holes 3. Assess fume controls	1. Fire watch and equipment 2. Access protection 3. Airflow and PPE				
2. Check power and gun	1. Weak weld 2. Unexpected discharge 3. Cable trip	1. Return poor 2. Gun setup wrong 3. Cables crossed	1. Verify welding return 2. Set gun per procedure 3. Protect cable route	1. Return connection 2. Gun and ferrule 3. Cable condition				
3. Prepare and test	1. Metal ejection 2. Burn 3. False trial release	1. Wet surface 2. Wrong settings 3. Test range unrecorded	1. Clean joint zone 2. Make specified trial 3. Record actual combination	1. Settings and supply 2. Trial result 3. Applicable production area				
4. Weld production	1. Fume exposure 2. Weld inconsistency 3. Hand burn	1. Coating unassessed 2. Cable heating 3. Hot stud touched	1. Use planned extraction 2. Monitor welding condition 3. Protect hot zone	1. Fume controls 2. Current and weld trend 3. Stud location record				
5. Inspect and repair	1. Hot fragment 2. Repeat poor weld 3. Wrong repair location	1. Ferrule broken unsafely 2. Cause not resolved 3. Map missing	1. Control cooled fragments 2. Apply approved repair 3. Mark affected studs	1. Defect map 2. Repair procedure 3. Retest result				
6. Hold changed conditions	1. Unqualified combination 2. Premature restart 3. Escape blocked	1. Layers changed 2. Old approval reused 3. Screen moved	1. Review fire and quality 2. Recheck trial scope 3. Restore safe routes	1. Material and settings 2. New evidence 3. Restart decision				

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

4. Pre-work checklist

☐ Fire watch and equipment	☐ Return connection	☐ Settings and supply
☐ Fume controls	☐ Defect map	☐ Material and settings
☐ Airflow and PPE	☐ Stud location record	☐ Restart decision