

Portable weld-finish grinding - 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 Select wheel        |      |                 |                        |                  |          |               |                      |
| HP-2 Mount and trial     |      |                 |                        |                  |          |               |                      |
| HP-3 Grind within limits |      |                 |                        |                  |          |               |                      |
| HP-4 Stop and inspect    |      |                 |                        |                  |          |               |                      |

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. Secure work area    | 1. Awkward-posture fall<br>2. Electric shock<br>3. Fragment exposure   | 1. Edge access restricted<br>2. Lead touches work<br>3. Eye/face gaps              | 1. Plan approach and stance<br>2. Protect power leads<br>3. Select assessed PPE                     | 1. Approach/kickback route<br>2. Lead/connectors<br>3. Eye/face/hearing controls       |   |   |   |   |
| 2. Select wheel        | 1. Side-load failure<br>2. Guard interference<br>3. Mounting release   | 1. Cutoff purpose confused<br>2. Wrong diameter/thickness<br>3. Wrong flange/bore  | 1. Verify actual grinding purpose<br>2. Match guard dimensions<br>3. Use specified mounting         | 1. Permitted contact face<br>2. Dimensions and guard<br>3. Bore/flange method          |   |   |   |   |
| 3. Mount and trial     | 1. Damaged-wheel breakup<br>2. Vibration<br>3. Bystander hit           | 1. Inspection omitted<br>2. Mount/handle loose<br>3. Trial boundary absent         | 1. Inspect/test for wheel type<br>2. Mount guards and handle<br>3. Run instructed safe trial        | 1. Wheel damage/history<br>2. Mount and guard checks<br>3. Trial duration/observations |   |   |   |   |
| 4. Grind within limits | 1. Wheel overload<br>2. Base-metal gouge<br>3. Spark/dust exposure     | 1. Unapproved contact face<br>2. Removal limit ignored<br>3. Capture/boundary lost | 1. Maintain two-hand control<br>2. Check geometry progressively<br>3. Maintain sparks/dust controls | 1. Handle/stance/direction<br>2. Remaining dimensions<br>3. Capture and boundary       |   |   |   |   |
| 5. Stop and inspect    | 1. Hot-metal burn<br>2. Overground weld used<br>3. Hidden defect       | 1. Heat ignored<br>2. Appearance accepted<br>3. Weld ID not linked                 | 1. Check heat and smouldering<br>2. Verify dimensions/inspection<br>3. Link unresolved findings     | 1. Residual heat<br>2. Geometry/inspection<br>3. Weld-specific hold                    |   |   |   |   |
| 6. Hold abnormality    | 1. Wrong wheel reused<br>2. Unresolved restart<br>3. Further weld loss | 1. Replacement unidentified<br>2. Trial omitted<br>3. Repair improvised            | 1. Inspect isolated configuration<br>2. Recheck matched wheel/trial<br>3. Review weld disposition   | 1. Wheel/mount/guard<br>2. Replacement and trial<br>3. Affected area/release           |   |   |   |   |

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

4. Pre-work checklist

|                                                    |                                                 |                                                |
|----------------------------------------------------|-------------------------------------------------|------------------------------------------------|
| <input type="checkbox"/> Approach/kickback route   | <input type="checkbox"/> Permitted contact face | <input type="checkbox"/> Wheel damage/history  |
| <input type="checkbox"/> Handle/stance/direction   | <input type="checkbox"/> Residual heat          | <input type="checkbox"/> Wheel/mount/guard     |
| <input type="checkbox"/> Eye/face/hearing controls | <input type="checkbox"/> Capture and boundary   | <input type="checkbox"/> Affected area/release |