



Gloucestershire Warwickshire Steam Railway Plc
Risk Assessment for Safe Use of Portable Electric Power Tools - Carriage and Wagon

Risk Assessment - Safe Use of Portable Electric Power Tools

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Department: Carriage and Wagon

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Team: I Stroud

Using Power Sanders

| Type | Hazard Cause | Persons Affected | Control Measures | L Overall | S | T | Additional Control Measures | L Overall | S | T | Owner/Action |
|-------------------|--|--------------------|--|---|-----|---|--|---|-----|---|--------------|
| Health and Safety | Hand Arm Vibration (HAV) Excessive Amount of Time Using a Power Sander | Volunteers & Staff | 1) CRITICAL - Administrative: The risk can be reduced by limiting the use of equipment to the exposure limit EAV value. All equipment is tagged. Green 8 hours a day, Amber 2 hours a day and Red 30 mins a day. - Effective | 1 x | 3 = | 3 | 1) Elimination: Consider Reducing the Amount of Time Further - Effective | 1 x | 2 = | 2 | n/a |
| | | | | Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | | | | Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | | | |
| Health and Safety | Inhalation of Harmful Dusts Dust is inevitably released during the coarse of sanding | Volunteers & Staff | 1) CRITICAL - Engineering: Periodically Vacuum Away Dust in Work Area - Effective 2) CRITICAL - Administrative: Ensure that Work Area is adequately ventilated - Effective 3) CRITICAL - PPE: Wear Face Mask for this task - Effective | 2 x | 2 = | 4 | 1) Administrative: Consider the Introduction of Improved Dust Extraction Equipment in Workshop - Effective | 1 x | 1 = | 1 | n/a |
| | | | | Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | | | | Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | | | |

Using Portable Power Drills

| Type | Hazard Cause | Persons Affected | Control Measures | L Overall | S | T | Additional Control Measures | L Overall | S | T | Owner/Action |
|-------------------|--|--------------------|---|---|-----|---|--|---|-----|---|--------------|
| Health and Safety | Cuts and Bruises to Hands and Body Flying debris caused by drill breakage or improper drilling techniques. | Volunteers & Staff | 1) CRITICAL - PPE: Always wear gloves and goggles - Effective | 2 x | 2 = | 4 | 1) Administrative: Consider training in the use of power tools - Effective | 2 x | 2 = | 4 | n/a |
| | | | | Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | | | | Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | | | |



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|-------------------|--|--------------------|--|--|--------|---|--|--------|--------------|
| Health and Safety | Hand Arm Vibration Excessive Amount of Time Using a Power Drill, especially with Percussion | Volunteers & Staff | 1) CRITICAL - Administrative: The risk can be reduced by limiting the use of equipment to the exposure limit EAV value. All equipment is tagged. Green 8 hours a day, Amber 2 hours a day and Red 30 mins a day. - Effective | 1 x 3 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 3 | 1) Elimination: Consider Reducing the Amount of Time Further - Effective | 1 x 2 = 2 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 2 | n/a |
| Health and Safety | Electric Shock Inadvertent contact between a drill bit and live electric cabling. | Volunteers & Staff | 1) CRITICAL - Engineering: The mains sockets in the workshop are wired through Residual Current Device (RCD) trip switches to reduce the chance of a serious electric shock if a live wire touched by a drill. - Effective 2) CRITICAL - Administrative: Work Areas to be checked for the presence of hidden electric cables - Effective 3) CRITICAL - Administrative: Cabling to the electric drill to be carefully routed behind and away from the work area - Effective 4) CRITICAL - Administrative: Battery powered drills should be used when and where possible - Effective 5) CRITICAL - Administrative: All mains powered equipment to be PATS tested and certified - Effective | 2 x 3 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical. | 6 | 1) Administrative: Consider converting all powered drills to 110volt operation - Effective 2) Administrative: Consider training in the safe use of power tools - Effective | 2 x 3 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical. | 6 | n/a |

Using Angle Grinders

| Type | Hazard Cause | Persons Affected | Control Measures | L Overall | S T | Additional Control Measures | L Overall | S T | Owner/Action |
|-------------------|--|--------------------|---|--|--------|--|--|--------|--------------|
| Health and Safety | Serious Injury to Eyes, Hands and/or Face. The Release of Sharp Hot Material fragments into the Surrounding Air | Volunteers & Staff | 1) CRITICAL - Elimination: Erect a barrier if required to protect co-workers. - Effective 2) CRITICAL - Engineering: Ensure that Sparks etc travel away from areas where either the user or another volunteer is standing - Effective 3) CRITICAL - Administrative: Take Care not to Overstretch when working at height. - Effective 4) CRITICAL - Administrative: Ensure that Guard is Fitted to the Grinder to Contain the Flying Debris - Effective 5) CRITICAL - Administrative: Be mindful of the presence of others in the work area. - Effective 6) CRITICAL - PPE: Always wear goggles, gloves, and face mask. - Effective | 3 x 2 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical. | 6 | 1) Administrative: Consider training in angle grinder usage. - Effective | 2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 4 | n/a |
| Health and Safety | Hand Arm Vibration Excessive Amount of Time Using an Angle Grinder | Volunteers & Staff | 1) CRITICAL - Administrative: The risk can be reduced by limiting the use of equipment to the exposure limit EAV value. All equipment is tagged. Green 8 hours a day, Amber 2 hours a day and Red 30 mins a day. - Effective 2) CRITICAL - PPE: Gloves will Reduce The Effect - Effective | 1 x 3 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 3 | None | 1 x 3 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 3 | n/a |



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|-------------------|--|--------------------|---|--|--------|--|--|--------|--------------|
| Health and Safety | Inhalation of Harmful Dust or Sharp Hot Fragments Angle Grinding Always Releases Sharp Hot Particles into the Surrounding Air | Volunteers & Staff | 1) CRITICAL - PPE: Always Wear Face Mask - Effective | 2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 4 | None | 2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 4 | n/a |
| Health and Safety | Cuts and Bruises to Body Sharp and Hot Material Fragments Contacting Body. Could also occur due to a shattering grinding disc. | Volunteers & Staff | 1) CRITICAL - Administrative: Know your own limitations. Do Not Overstretch. Make Sure Area is clear of other objects, tools etc. - Effective 2) CRITICAL - PPE: Always wear overalls, gloves, goggles and face mask. - Effective | 2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 4 | 1) Administrative: Consider Training in the Proper Use of Angle Grinders - Effective 2) Administrative: Consider Limiting the Use of Angle Grinders to Competent People - Effective | 2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 4 | n/a |
| Health and Safety | Electric Shock Inadvertent contact between blade/disc and live electric cabling. | Volunteers & Staff | 1) CRITICAL - Engineering: The mains sockets in the workshop are wired through Residual Current Device (RCD) trip switches to reduce the chance of a serious electric shock if a live wire is touched by a blade or disc. - Effective 2) CRITICAL - Administrative: Work Area to be check for the presence of hidden electric cables - Effective 3) CRITICAL - Administrative: Cabling to the power saw to be carefully routed behind and away from the work area. - Effective 4) CRITICAL - Administrative: All equipment must be PATS tested and certified - Effective | 2 x 3 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical. | 6 | 1) Administrative: Consider training in the safe use of power tools. - Effective | 2 x 3 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical. | 6 | n/a |

Using Power Saws and Knives

| Type | Hazard Cause | Persons Affected | Control Measures | L Overall | S T | Additional Control Measures | L Overall | S T | Owner/Action |
|-------------------|--|--------------------|--|--|--------|--|--|--------|--------------|
| Health and Safety | Serious Hand Injury from Cutting Blade Careless and/or improper use of a circular saw, hacksaw, jigsaw or angle grinder. | Volunteers & Staff | 1) CRITICAL - Engineering: Blade guards always to be used. - Effective 2) CRITICAL - Administrative: Circular Saw always to be used horizontally and held in the hands - Effective 3) CRITICAL - PPE: Gloves and goggles always to be worn - Effective | 2 x 3 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical. | 6 | 1) Administrative: Use of these tools only by trained and competent volunteers - Effective 2) Administrative: Consider training in the use of power tools - Effective | 1 x 3 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 3 | n/a |



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|-------------------|--|--------------------|---|--|--------|--|--|--------|--------------|
| Health and Safety | Electric Shock Inadvertent contact of blade with live mains cabling. | Volunteers & Staff | 1) CRITICAL - Elimination: All equipment must be PATS tested and certified - Effective 2) CRITICAL - Engineering: The mains sockets in the workshop are wired through Residual Current Device (RCD) trip switches to reduce the chance of a serious electric shock if a live wire is touched by a tool. - Effective 3) CRITICAL - Administrative: Working area to be checked for hidden electric cables - Effective | 2 x 3 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical. | 6 | 1) Administrative: Consider training in the proper use of power saws - Effective | 1 x 3 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 3 | n/a |
| Health and Safety | Eye Injury Contact with Flying Debris caused by release of sharp material fragments and/or blade breakage.. | Volunteers & Staff | 1) CRITICAL - PPE: Goggles to be worn - Effective | 2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 4 | 1) Administrative: Consider training in the use of power tools - Effective | 2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 4 | n/a |
| Health and Safety | Being Struck by An Insecure Workpiece Inadequate Clamping of Workpiece when Sawing or Cutting | Volunteers & Staff | 1) CRITICAL - Administrative: Object to be Properly Clamped and Secure before being cut - Effective | 2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 4 | None | 2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 4 | n/a |

Using Hot Air Guns

| Type | Hazard Cause | Persons Affected | Control Measures | L Overall | S T | Additional Control Measures | L Overall | S T | Owner/Action |
|-------------------|---|--------------------|--|--|--------|---|--|--------|--------------|
| Health and Safety | Burns to hands and/or body. Inadvertent touching of a hot gun nozzle, or excessive amount of hot gas contacting hands or body. | Volunteers & Staff | 1) Elimination: All equipment must be PATS tested and certified - Effective 2) CRITICAL - Engineering: The mains sockets in the workshop are wired through Residual Current Device (RCD) trip switches to reduce the chance of a serious electric shock if a live wire is touched by a tool. - Effective 3) CRITICAL - Administrative: Hot Air gun not to be Left in a location where others could inadvertently touch the nozzle. - Effective 4) CRITICAL - Administrative: Care to be taken when using not to point nozzle at others in the vicinity - Effective 5) CRITICAL - PPE: Gloves and overalls to be worn - Effective | 1 x 2 = 2 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 2 | 1) Administrative: Consider training in the safe use of hot air guns. - Effective | 1 x 2 = 2 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 2 | n/a |



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|-------------------|---|--------------------|--|---|-----|---|-----------------------------|---|-----|---|--------------|
| Health and Safety | Small Fire Inadvertent Ignition of combustible material such as sawdust or plastic | Volunteers & Staff | 1) CRITICAL - Administrative: Work Areas to be Visually Inspected Before and After a Hot Air Gun is Used for flammable materials and/or smoke etc - Effective 2) CRITICAL - Administrative: Ensure a fire extinguisher is always available. - Effective | 1 x | 4 = | 4 | None | 1 x | 4 = | 4 | n/a |
| | | | | Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | | | | Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | | | |

Using Staple Guns

| Type | Hazard Cause | Persons Affected | Control Measures | L Overall | S | T | Additional Control Measures | L Overall | S | T | Owner/Action |
|-------------------|---|--------------------|--|---|-----|---|--|---|-----|---|--------------|
| Health and Safety | Eye Injury Inadvertent Firing of the Gun towards the face. | Volunteers & Staff | 1) CRITICAL - Administrative: Staple Gun Only to be Fired when in contact with the surface to be attached - Effective 2) CRITICAL - Administrative: Staple guns only to be used on wood and upholstery - Effective 3) CRITICAL - PPE: Goggles to be worn for this activity - Effective | 1 x | 3 = | 3 | 1) Administrative: Consider training staff in the safe use of staple guns. - Effective | 1 x | 2 = | 2 | n/a |
| | | | | Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | | | | Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | | | |
| Health and Safety | Hand Injury Staple not penetrating the substrate properly, then coming into contact with the hands of the operator | Volunteers & Staff | 1) CRITICAL - Administrative: The risk can be reduced by limiting the use of equipment to the exposure limit EAV value. All equipment is tagged. Green 8 hours a day, Amber 2 hours a day and Red 30 mins a day. - Effective 2) CRITICAL - PPE: Gloves to be worn to reduce the risk of injury to hands - Effective | 2 x | 1 = | 2 | 1) Administrative: Consider training in the safe use of staple guns. - Effective | 2 x | 1 = | 2 | n/a |
| | | | | Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | | | | Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | | | |

COSHH Assessments

There are no COSHH assessments associated with this risk assessment.

Reference Documents

• HAVS_C&W_12_02_21 - HAV Limits - Recommendations for Power Tools Used in C&W

Ends