



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

Reference No: CAR-44239-55

Version No: 3

Assessment Approver: Kevin 'Kev' Jarvis

Department: Carriage and Wagon
Date Of Assessment: 12 February 2021
Review Due Before: 04 November 2026
Lead Assessor: A. Killey
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 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	3 = 3	3	1) Elimination: Consider Reducing the Amount of Time Further - Effective	1 x Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	2 = 2	2	n/a
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 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	2 = 4	4	1) Administrative: Consider the Introduction of Improved Dust Extraction Equipment in Workshop - Effective	1 x Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	1 = 1	1	n/a

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 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	2 = 4	4	1) Administrative: Consider training in the use of power tools - Effective	2 x Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	2 = 4	4	n/a



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

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 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 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	3 = 3		1) Elimination: Consider Reducing the Amount of Time Further - Effective	1 x Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	2 = 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 Medium - Risk to be minimised and controlled so far as is reasonably practical.	3 = 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 Medium - Risk to be minimised and controlled so far as is reasonably practical.	3 = 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 Medium - Risk to be minimised and controlled so far as is reasonably practical.	2 = 6		1) Administrative: Consider training in angle grinder usage. - Effective	2 x Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	2 = 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 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	3 = 3		None	1 x Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	3 = 3		n/a



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

Type	Hazard Cause	Persons Affected	Control Measures	L Overall	S	T	Additional Control Measures	L Overall	S	T	Owner/Action
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.			None	2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.			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.			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.			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.			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.			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.			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.			n/a



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

Type	Hazard Cause	Persons Affected	Control Measures	L Overall	S	T	Additional Control Measures	L Overall	S	T	Owner/Action
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 Medium - Risk to be minimised and controlled so far as is reasonably practical.	3 = 6	1) Administrative: Consider training in the proper use of power saws - Effective	1 x Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	3 = 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 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	2 = 4	1) Administrative: Consider training in the use of power tools - Effective	2 x Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	2 = 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 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	2 = 4	None	2 x Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	2 = 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 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	2 = 2	1) Administrative: Consider training in the safe use of hot air guns. - Effective	1 x Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	2 = 2	n/a		



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

Type	Hazard Cause	Persons Affected	Control Measures	L Overall	S	T	Additional Control Measures	L Overall	S	T	Owner/Action
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 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.			None	1 x 4 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.			n/a

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 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.			1) Administrative: Consider training staff in the safe use of staple guns. - Effective	1 x 2 = 2 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.			n/a
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 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.			1) Administrative: Consider training in the safe use of staple guns. - Effective	2 x 1 = 2 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.			n/a

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