



**Gloucestershire Warwickshire Steam Railway Plc**  
**Risk Assessment for Mechanical Handling of Track Components - Permanent Way**

**Risk Assessment - Mechanical Handling of Track Components**

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Assessment Approver: Kevin 'Kev' Jarvis

Department: Permanent Way

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**Lifting and moving track components with telehandler/360 digger**

Type	Hazard Cause	Persons Affected	Control Measures	L Overall	S T	Additional Control Measures	L Overall	S T	Owner/Action
Health and Safety	Overturning of lifting plant vehicle Working on uneven ground whilst lifting loads	Volunteers & Staff	1) CRITICAL - Elimination: Lifting plant not to be used on uneven ground with slopes greater than 8 degrees without further risk assessment. - Effective 2) CRITICAL - Administrative: Plant operators are trained and competent in vehicle use. - Effective 3) CRITICAL - Administrative: Longitudinal load alarm system on telehandler tested daily and used to detect limits of longitudinal load capacity when lifting loads. - Effective 4) CRITICAL - Administrative: Designated controller/banksman working with the lifting plant can help sight ground hazards and assist in making decisions on lifting and movement.. - Effective 5) CRITICAL - Administrative: Telehandler has lateral level gauge with guidance on operating limits for lifting and travelling with loads. - Effective 6) CRITICAL - PPE: Plant operator always to use seat belt when working in vehicle. - Effective	2 x Medium - Risk to be minimised and controlled so far as is reasonably practical.	4 = 8	None	2 x Medium - Risk to be minimised and controlled so far as is reasonably practical.	4 = 8	n/a
Health and Safety	Personnel struck by plant vehicle Movement of vehicle in proximity of personnel working in the vicinity	Volunteers & Staff	1) CRITICAL - Administrative: Telehandler operators are trained and competent in vehicle use. - Effective 2) CRITICAL - Administrative: Designated controller/banksman working with the plant and help sight personnel. - Effective 3) CRITICAL - Administrative: Activity is planned and reported in daily brief to operating teams. - Effective 4) CRITICAL - Administrative: Telehandler mirrors checked at the start of every day in use and maintained in good working order. - Effective 5) CRITICAL - Administrative: Activity is planned and assessed in daily risk briefing by PIC - Effective 6) CRITICAL - PPE: Personnel wearing hiviz clothing, protective boots and gloves. - Effective	2 x Medium - Risk to be minimised and controlled so far as is reasonably practical.	4 = 8	None	2 x Medium - Risk to be minimised and controlled so far as is reasonably practical.	4 = 8	n/a
Health and Safety	Contact with gas/electric/water utility service Collision of vehicle with unsighted utility service	Volunteers & Staff	1) CRITICAL - Administrative: Telehandler operators are trained and competent in vehicle use. - Effective 2) CRITICAL - Administrative: Underground services are identified on new sites and marked to prevent damage. - Effective 3) CRITICAL - Administrative: Site risk assessments and briefings at the start of each day of use identify overhead services and precautions. - Effective	2 x Medium - Risk to be minimised and controlled so far as is reasonably practical.	3 = 6	1) Administrative: Locations around overhead services marked with gateway/barriers to prevent unintentional working in close proximity. - Effective	2 x Medium - Risk to be minimised and controlled so far as is reasonably practical.	3 = 6	n/a



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Type	Hazard Cause	Persons Affected	Control Measures	L Overall	S	T	Additional Control Measures	L Overall	S	T	Owner/Action
Health and Safety	Personnel impacted by swinging or dropped load. Lifting equipment failure whilst under load.	Volunteers & Staff	1) CRITICAL - Engineering: Standard lifting activities have a load plan in place to identify required lifting equipment and minimize risk of equipment overload. - Effective 2) CRITICAL - Engineering: A tag line should be used to control unwarranted movement of suspended load to keep it under control. - Effective 3) CRITICAL - Administrative: Telehandler operators are trained and competent in vehicle use and lifting practices. - Effective 4) CRITICAL - Administrative: Designated controller/banksman working with the plant and lifting activities to reduce risk to personnel from impact by load. - Effective 5) CRITICAL - Administrative: Lifting equipment is appropriately maintained and certified for use. - Effective 6) CRITICAL - PPE: Personnel wearing hiviz clothing, protective boots, hard hats and gloves. - Effective	3 x	3 =	9	None	3 x	3 =	9	n/a
				Medium - Risk to be minimised and controlled so far as is reasonably practical.				Medium - Risk to be minimised and controlled so far as is reasonably practical.			
Health and Safety	Personnel falling from height whilst slinging load Trip, slip, or fall whilst handling lifting equipment	Volunteers & Staff	1) CRITICAL - Elimination: Access to raised areas is suitable for personnel access for attaching lifting gear to loads. Portable ladders available if needed for easy access. - Effective 2) CRITICAL - Elimination: Personnel wearing hiviz clothing, protective boots, hard hats and gloves. - Effective 3) CRITICAL - Administrative: Rigging personnel stand clear of loads when being lifted and reduce hand contact to prevent pinch/shoves from load. - Effective 4) CRITICAL - Administrative: Personnel accessing raised areas have completed 'working at height' competency training. - Effective	3 x	2 =	6	None	3 x	2 =	6	n/a
				Medium - Risk to be minimised and controlled so far as is reasonably practical.				Medium - Risk to be minimised and controlled so far as is reasonably practical.			
Finance	Dropped load Failure of lifting equipment	Volunteers & Staff	1) CRITICAL - Administrative: Telehandler operators are trained and competent in vehicle use. - Effective 2) CRITICAL - Administrative: Designated controller/banksman working with the plant and help sight lifting snagging risks. - Effective 3) CRITICAL - Administrative: Lifting equipment is appropriately maintained and certified for use. - Effective 4) CRITICAL - PPE: Personnel wearing hiviz clothing, protective boots, hard hats and gloves. - Effective	3 x	3 =	9	None	3 x	3 =	9	n/a
				Medium - Risk to be minimised and controlled so far as is reasonably practical.				Medium - Risk to be minimised and controlled so far as is reasonably practical.			
Finance	Rail vehicle impacted by plant or load Vehicle movement, swinging load or dropped load impacts rail vehicle	Volunteers & Staff	1) CRITICAL - Engineering: A tag line should be used to control unwarranted movement of suspended load to keep it under control. - Effective 2) CRITICAL - Administrative: Telehandler operators are trained and competent in vehicle use. - Effective 3) CRITICAL - Administrative: Designated controller/banksman working with the plant and help sight lifting impact risks. - Effective 4) CRITICAL - Administrative: Rail vehicles sound warning horn/whistle and require acknowledgement before moving train. - Effective	3 x	3 =	9	None	3 x	3 =	9	n/a
				Medium - Risk to be minimised and controlled so far as is reasonably practical.				Medium - Risk to be minimised and controlled so far as is reasonably practical.			
Operations	Plant vehicle hit by passing train Train unsighted by plant operator or banksman	Passengers	1) CRITICAL - Administrative: Telehandler operators are trained and competent in vehicle use. - Effective 2) CRITICAL - Administrative: Designated controller/banksman working with the plant and help sight rail vehicle movements. - Effective 3) CRITICAL - Administrative: Plant lineside activity is planned and reported in daily brief to operating teams. - Effective 4) CRITICAL - Administrative: Train crew sound warning horn and expect response from lineside team before proceeding. - Effective	2 x	5 =	10	None	2 x	5 =	10	n/a
				Medium - Risk to be minimised and controlled so far as is reasonably practical.				Medium - Risk to be minimised and controlled so far as is reasonably practical.			

**Transportation of 7.5m rail lifting beam**



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Type	Hazard Cause	Persons Affected	Control Measures	L Overall	S T	Additional Control Measures	L Overall	S T	Owner/Action
Health and Safety	Impact of rail beam on rail infrastructure. Unsighted interference or unexpected movement	Volunteers, Staff & Contractors	1) CRITICAL - Elimination: Rail beam transportation over extended distances outside of site area performed with rail vehicle, ironman or trolleys. - Effective 2) CRITICAL - Administrative: Plant operators are trained and competent in vehicle use. - Effective 3) CRITICAL - Administrative: Designated controller/banksman working with the plant and help sight interference with railway infrastructure.. - Effective	3 x 2 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical.	6	None	3 x 2 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical.	6	n/a
Health and Safety	Overturning of lifting plant overloading or uneven ground causes instability	Volunteers & Staff	1) CRITICAL - Administrative: Telehandler operators are trained and competent in vehicle use. - Effective 2) CRITICAL - Administrative: Designated controller/banksman working with the plant to help identify stability issues. - Effective 3) CRITICAL - Administrative: Longitudinal load alarm system on telehandler tested daily and used to detect limits of longitudinal load capacity when lifting loads. - Effective 4) CRITICAL - Administrative: Lateral level gauge available to ensure lifts are made within plant operational limits. - Effective	3 x 3 = 9 Medium - Risk to be minimised and controlled so far as is reasonably practical.	9	None	3 x 3 = 9 Medium - Risk to be minimised and controlled so far as is reasonably practical.	9	n/a

**Lifting and moving track components by contractor**

Type	Hazard Cause	Persons Affected	Control Measures	L Overall	S T	Additional Control Measures	L Overall	S T	Owner/Action
Health and Safety	Overturning of contractor vehicle Working on uneven ground whilst lifting loads	Volunteers, Staff & Contractors	1) CRITICAL - Administrative: Contractor operator is trained and competent in vehicle use. - Effective 2) CRITICAL - Administrative: Designated controller/banksman working with the contractor to help sight instability risks. - Effective	2 x 4 = 8 Medium - Risk to be minimised and controlled so far as is reasonably practical.	8	None	2 x 4 = 8 Medium - Risk to be minimised and controlled so far as is reasonably practical.	8	n/a
Health and Safety	Personnel injury from load or vehicle movement Unsighted interference or unexpected movement	Volunteers, Staff & Contractors	1) CRITICAL - Administrative: Contractor operators are trained and competent in vehicle use. - Effective 2) CRITICAL - Administrative: Designated controller/banksman working with the contractor to plan lifting activities and be interface with GWSR team during lifting activities. - Effective 3) CRITICAL - PPE: Personnel wearing hiviz clothing, protective boots, hard hats and gloves. - Effective	2 x 4 = 8 Medium - Risk to be minimised and controlled so far as is reasonably practical.	8	None	2 x 4 = 8 Medium - Risk to be minimised and controlled so far as is reasonably practical.	8	n/a
Health and Safety	Collision with rail vehicle Unsighted rail vehicle movement	Everyone	1) CRITICAL - Administrative: Activity is planned and reported in daily brief to operating teams. - Effective 2) CRITICAL - Administrative: Track possession obtained for contractor access to running line areas and use of RRVs. - Effective 3) CRITICAL - Administrative: Designated controller/banksman working with the plant and help sight rail vehicle movements. - Effective	2 x 4 = 8 Medium - Risk to be minimised and controlled so far as is reasonably practical.	8	None	2 x 4 = 8 Medium - Risk to be minimised and controlled so far as is reasonably practical.	8	n/a

**COSHH Assessments**

There are no COSHH assessments associated with this risk assessment.

Ends