

Ref	SMF/SE0311
Issue	3
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Introduction

The purpose of these datasheets is to explain:

- (i) Hand Arm Vibration Syndrome (HAVS) data in terms of practical usage times for the most widely used pieces of vibratory small plant on Network Rail Infrastructure Group.
- (ii) Noise data for the most widely used pieces of small plant on Network Rail Infrastructure.

The Small Plant HAVS Data Sheets are issued to support working within the required EAV Exposure Action Value (EAV) and the Exposure Limit Value (ELV).

The Data Sheets are to:

- Aide Planners and Managers in planning safe systems of work within the HAVS & Noise limits
- Allow Supervisors and Team Leaders on site to change working arrangements

All entries focus on tool rotation with the aim of no gang member exceeding the EAV. There will be situations where the EAV will be exceeded because of local working plans.

Small plant HAVS and Noise Data Sheets

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GRINDING

Tools should be regularly rotated between staff

Geismar MP12/MV3 Combination	Application	Grinding Time on each machine before EAV is reached			Grinding Time on each machine before ELV is reached			What does it mean for you?
 	Removal of Head Checking Cracking on head of rail GCC Works Removal of Ballast Marks	MP12	MV3	MP12	MV3	Worked Example		
		45min	+	0hr	3hr	+	0hr	If you use an MP12 for 2hrs you can use an MV3 to finish off the rail for another 2 hours before the ELV is reached, but rotation should be carried out with the aim on no gang member exceeding the EAV
		40min	+	8min	2hr 45min	+	30min	
		30min	+	30min	2hr	+	2hr	

Geismar MC3/MV3 Combination	Application	Grinding Time on each machine before EAV is reached			Grinding Time on each machine before ELV is reached			What does it mean for you?
 	Removal of Lipping from switches Re-profiling of switchblades Reprofiling rail	MC3		MV3	MC3		MV3	Worked Example
		0hr	+	1hr 30min	1hr	+	6hr	If you are removing lipping with an MC3 for 2hrs you can use an MV3 to reprofile for a further 3hrs before ELV is reached but rotation should be carried out with the aim on no gang member exceeding the EAV
		30min	+	45min	2hr	+	3hr	
		45min	+	20min	3hr	+	1hr 30min	
		1hr	+	0hr	4hr	+	0hr	

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Robel 13.61/MV3 Combination	Application	Grinding Time on each machine before EAV is reached		Grinding Time on each machine before ELV is reached		What does it mean for you?
	Removal of Lipping from switches Re-profiling of switchblades Re-profiling rail	Robel 13.61	MV3	Robel 13.61	MV3	Worked Example
		50 min	+ 0hr	3hr 25 min	+ 0hr	If you are use the 13.61 for 1hr 40 minutes you can use an MV3 to reprofile for a further 1hr 30 minutes before ELV is reached but rotation should be carried out with the aim on no gang member exceeding the EAV
		25 min	+ 45min	1hr 40min	+ 1hr 30min	
		0 min	+ 1hr 30min	0	+ 6hr	

Angle Grinder/MC3 Combination	Application	Grinding Time on each machine before EAV is reached		Grinding Time on each machine before ELV is reached		What does it mean for you?
	Removal of Lipping from switches Re-profiling of switchblades Re-profiling rail	Angle Grinder	MC3	Angle Grinder	MC3	Worked Example
		40min	+ 0hr	2hr 40min	+ 0hr	If you use an angle grinder for 2hr 40 minutes your ELV will be reached but rotation should be carried out with the aim on no gang member exceeding the EAV
		20min	+ 30min	1hr 20min	+ 2hr	
		0hr	+ 1hr	0hr	+ 4hr	

Angle Grinder/Robel 13.61 Combination	Application	Grinding Time on each machine before EAV is reached		Grinding Time on each machine before ELV is reached		What does it mean for you?
	Removal of Lipping from switches Re-profiling of switchblades Re-profiling rail	Angle Grinder	Robel 13.61	Angle Grinder	Robel 13.61	Worked Example
		0hr	+ 50min	0hr	+ 3hr 25min	If you use an angle grinder for 1hr 20 minutes you can use the 13.61 to reprofile for a further 1hr 40 minutes before ELV is reached but rotation should be carried out with the aim on no gang member exceeding the EAV
		20min	+ 25min	1hr 20min	+ 1hr 40min	
		40min	+ 0hr	2hr 40min	+ 0hr	

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GRINDING

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Hand Positions designated by -

	Application	Grinding Time on each machine before EAV is reached	Grinding Time on each machine before ELV is reached	What does it mean for you?
Robel 13.48 	Removal of Head Checking Cracking on head of rail GCC Works Removal of Ballast Marks	49 minutes	3hrs 15 minutes	With hands placed on the top handle furthest from the engine and the operating wheel. You can use the 13.48 for 3hrs 15 minutes before exposure limit value is reached, but rotation on the tool should be carried out with the aim of no gang member exceeding the EAV (49 minutes of grinding time)
Geismar MP23 	Removal of Head Checking Cracking on head of rail GCC Works Removal of Ballast Marks	1hr	4hr	With hands placed on the operating handle and angle adjustment wheel You can use the MP23 for 4hrs before exposure limit value is reached, but rotation on the tool should be carried out with the aim of no gang member exceeding the EAV (1hr minutes of trigger time)

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WELDING

Aluminothermic Weld

Tools should be regularly rotated between staff

	Equipment Used	Type of Weld	Volume of work before EAV is reached	Volume of work before ELV is reached	What does it mean for you?
	MP12 Profile Grinder, Petrol Disc Cutter 110V Angle Grinder 110V Needle Gun	Standard Gap	3 welds	12 welds	A team of two welders can carry out 12 standard or 6 wide gap aluminothermic welds before ELV is reached, but teams should be rotated with the aim of no team exceeding the EAV
		Wide Gap	1 weld	6 welds	

Hand Positions designated by ●

	Geismar MP23 Profile Grinder, Petrol Disc Cutter 110V Angle Grinder 110V Needle Gun	Standard Gap	3 welds	12 welds	A team of two welders can carry out 12 standard or 6 wide gap aluminothermic welds before ELV is reached, but teams should be rotated with the aim of no team exceeding the EAV
		Wide Gap	1 weld	6 welds	
	Robel 13.48 Profile Grinder, Petrol Disc Cutter 110V Angle Grinder 110V Needle Gun	Standard Gap	3 welds	12 welds	A team of two welders can carry out 12 standard or 6 wide gap aluminothermic welds before ELV is reached, but teams should be rotated with the aim of no team exceeding the EAV
		Wide Gap	1 weld	6 welds	

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Aluminothermic Weld

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Hydraulic Tooling

	Equipment Used	Type of Weld	Volume of work before EAV is reached	Volume of work before ELV is reached	What does it mean for you?
	Hydraulic Profile Grinder Hydraulic Disc Cutter Hydraulic Angle Grinder 110V Needle Gun	Standard Gap	4 welds	16 welds	A team of two welders can carry out 16 standard or wide gap aluminothermic welds before the ELV is reached, but teams should be rotated with the aim of no team exceeding the EAV
		Wide Gap	4 welds	16 welds	

Geismar MP5

	Equipment Used	Type of Weld	Volume of work before EAV is reached	Volume of work before ELV is reached	What does it mean for you?
	MP5 Profile Grinder, Petrol Disc Cutter 110V Angle Grinder 110V Needle Gun	Standard Gap	4 welds	16 welds	A team of two welders can carry out 16 standard or wide gap aluminothermic welds before the ELV is reached, but teams should be rotated with the aim of no team exceeding the EAV
		Wide Gap	4 welds	16 welds	