Forkway Risk Assessment – RA 007

Task/ Activity	This assessment covers the safe use of bench or angle grinders.			**Persons Exposed**		
Location	Forkway locations and customer sites throughout the UK and Republic of Ireland.			**Forkway Employees**	**Customer Employees**	**Members of Public**
Name of Assessor(s)	Vic Hargreaves (Regional SHEQ Advisor)	**Date of Assessment**	12/04/2024 (V2)	1 - 2	May be in area	May be in area
		Date of Next Review	12/04/2025			

Stop and Think

Before undertaking any task/ activity it is essential that you have read and understood all of the control measures in this document and are satisfied that the control measures herein are suitable and sufficient. If you find the control measures are not suitable and sufficient, contact your line manager before proceeding.

Hazard	Initial			Control Measures	Residual		
	Likelihood	Severity	Rating		Likelihood	Severity	Rating
1. Cuts or lacerations from contact with abrasive wheel during normal operation;	3	5	15	Only trained and authorised engineers must use grinders and correct techniques must be followed as per training and manufacturer's operating instructions, ensuring that you have sufficient grip using both hands. Ensure guards are in place, functional and correctly adjusted. Never use grinder without guard. Leather faced cut resistant gloves must be worn throughout. Ensure abrasive wheel has come to a stop and grinder is disconnected from its power supply before making any adjustments or changing the abrasive wheel.	2	5	10
2. Abrasive wheel detaching and striking user or persons in the vicinity;	3	5	15	Ensure guards are in place, functional and correctly adjusted. Only trained and authorised engineers must replace abrasive wheels. Follow manufacturer's instructions and ensure abrasive wheel fitted is compatible with the grinder. Ensure pre-use checks are completed and item is maintained in line with manufacturer's recommendations. Avoid using a grinder in areas in close proximity to other persons. Where this cannot be avoided create a cordoned area to keep people a safe distance away. In addition to standard safety boots and overalls, engineers must wear leather faced cut resistant gloves, leather apron and suitable goggles or full face visor.	1	5	5
3. Abrasive wheel breaking up and particles striking user or persons in the vicinity;	3	5	15	As above. Observe expiry date on abrasive wheel and never use one which has expired. Check abrasive wheel before use to ensure it is secure, clean, dry and free from defects or contamination. Ensure spare wheels are stored in line with manufacturer's recommendations and remain clean, dry and free from contamination as a minimum.	2	5	10
	3	5	15		1	5	5

MULTIPLY THE LIKLIHOOD AND SEVERITY TO GET THE RISK RATING

Likelihood - (5=Very Likely, 4= Likely, 3= Possible, 2= Unlikely, 1= Highly Unlikely)

Severity - (5=Very Severe, 4= Severe, 3= Moderate, 2= Slight, 1=Negligible)

0- 5 = Low Risk - No Action Required.

6-15 = Medium Risk - Ensure adequate controls are in use.

16-25 = High Risk - Stop operation and implement adequate control measures

Hazard	Initial			Control Measures	Residual		
	L	S	R		L	S	R
4. Entangled with moving parts of grinder/ abrasive wheel;				Ensure guards are in place, functional and correctly adjusted. Ensure any loose clothing, jewellery, hair or similar that could become entangled is removed or tied back. Never operate grinder with rags or similar in hands.			
5. Struck or crushed by objects being cut or adjoining objects suddenly moving or falling;	3	5	15	Assess before starting and continue to dynamically assess throughout task whether there is a likelihood of objects being cut or adjoining objects suddenly moving or falling. If there is any possibility of this occurring ensure the items are supported to prevent any movement. Cordon off work area and ensure no persons remain nearby or below.	1	5	5
6. Fire or explosion from using grinder in an explosive atmosphere;	3	5	15	Grinding equipment must never be used in an explosive atmosphere. Always check with customer contact before using any grinding equipment that it is safe to use it in the desired area. Complete any customer permit-to-work procedures. Never use grinding equipment near a battery or battery charging area.	1	5	5
7. Fire from sparks or hot metal particles making contact with flammable or combustible materials in the vicinity;	3	5	15	Always check the vicinity before starting for any materials which may be flammable or combustible and consult customer to ensure there is nothing you may have missed. If flammable or combustible materials are present nearby, either move to a more suitable area or remove the items before starting. If neither can be achieved contact your line manager before proceeding. A more specific assessment may be required.	2	5	10
8. Fire from sparks or hot metal particles making contact with flammable or combustible items or components on the equipment under repair;	3	5	15	Remove component requiring grinding where possible and take to a suitable area. If component cannot be removed check for and remove any items or components in the vicinity which may be flammable or combustible. If this cannot be achieved make use of fire retardant blankets and ensure a second person is on hand equipped with a suitable fire extinguisher to watch for fire.	2	5	10
9. Fire from ignition of flammable or explosive chemicals or residues on the equipment/ component under repair or in the vicinity;	3	5	15	Check with customer contact if any chemicals or residues are present. Clean contaminated equipment down before starting. If chemicals or residues are present in the vicinity move to a more suitable area free from chemicals or residues or have them removed from the area before starting. If any of this cannot be achieved contact your line manager before proceeding. A more specific assessment may be required.	1	5	5
10. Explosion of pneumatic tyres from contact with abrasive wheel;	3	5	15	Avoid grinding at or near pneumatic tyres. If work is required in close proximity to pneumatic tyres, remove the wheels before starting. If work is required on the wheel itself ensure the tyre is removed.	1	5	5
11. Explosion or fire from cutting into closed tanks, drums or vessels which contain or previously contained flammable substances or residues;	3	5	15	Engineers must not cut or grind closed tanks, drums or vessels under any circumstances. Always check for the presence of closed tanks, drums or vessels before starting. Avoid working near these where possible. If work in close proximity to these cannot be avoided contact line manager before proceeding.	1	5	5

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12. Fire from sparks or hot components causing ignition a period of time after work has taken place;	3	5	15	Always monitor area for at least half an hour before leaving site and remain vigilant for signs of smoke or smouldering during this time. Consider using water to douse and cool areas that have been heated.	1	5	5
13. Burns or ignition of clothing from contact with sparks or hot metal particles;	4	5	20	Only trained and authorised engineers must use grinders and correct techniques must be followed as per training. Always adjust guards to direct sparks away from person and avoid working in a position where sparks or hot metal particles will strike you. In addition to standard safety boots and overalls, engineers must wear leather faced cut resistant gloves, leather apron and suitable goggles or full face visor. Overalls must be buttoned to the top. If there is a possibility of sparks or hot metal particles falling from above head height a heat retardant hat must also be worn. Ensure al PPE is clean and free from any flammable chemicals or residues before starting.	2	5	10
14. Sparks, dust or hot metal particles entering eyes;	4	5	20	As above. Ensure goggles or full face visor is tight fitting around eyes. Keep goggles or full face visor on when cleaning up metal dusts. Avoid touching face or eyes with your gloves. Wash hands immediately after task to remove any fine dust particles.	2	5	10
15. Persons in the vicinity being struck/ burnt by sparks or hot metal particles;	3	4	12	Avoid using a grinder in areas in close proximity to other persons. Where this cannot be avoided create a cordoned area to keep people a safe distance away or erect screens to stop any sparks or hot metal particles being ejected. Discuss with customer contact and ensure they instruct employees to remain clear of the area.	2	4	8
16. Burns from contact with hot grinder or components;	3	5	15	Ensure PPE is worn as stated above. Allow grinder or components that have become hot to cool before handling them. Consider using water to douse areas of components that have become heated.	2	5	10
17. Exposure to hazardous fumes or metal dust;	3	4	12	Do not use grinder in enclosed areas or where there is poor ventilation. Consult customer on the nature of any chemicals or residues that may be present and ensure they are cleaned from the component being worked on and surrounding areas before starting. If components being worked on are coated with lead or chromate paints or are galvanised or cadmium plated, contact your line manager before proceeding. A more specific assessment may be required. If an excessive amount of grinding is being undertaken a dust mask should be worn.	2	4	8
18. Hearing damage from adverse noise levels;	4	4	16	Ear defenders must be worn when using a grinder. Inform customer and warn others in area of increased noise levels.	1	4	4
19. HAV related injuries from exposure to adverse levels of vibration;	2	4	8	If trigger time is likely to exceed 1 hour or grinding has become a routine task (daily/ weekly activity) contact line manager before proceeding. Grinders must be CE Marked and maintained in good working order in line with manufacturer's recommendations. Avoid working in cold conditions and take regular breaks from grinding. Heavy duty gloves must be worn during task.	1	4	4

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20. Electrical shock;	2	5	10	Pneumatic or battery powered grinder should be used as preference. Mains powered grinder must not exceed 110V. A suitable RCD must be in place. Ensure hands are clean and dry prior to handling equipment. Ensure tooling including extension cables remain dry throughout task. Ensure all electrical tooling/ equipment is with current PAT test. Complete pre-use checks. If the equipment fails, or if its power supply cable or plug gets damaged, do not use it. Never try to repair powered tools yourself. Keep cables out of harm's way, and clear of moving parts.	1	5	5

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