

### **Machinery Maintenance & Refuelling**

Risk Assessment

	CREW DETAILS
IN AN EMER	GENCY CALL:
Team Lead:	Task Phone Number:
Crew:	

	TASK OVERVIEW	
Purpose of Task:		Date of Task:

**Task Benefit:** Extends equipment life and reliability. | Improves safety via inspected, well-tuned machines. | Optimizes performance and fuel efficiency on site. | Protects the environment through spill controls. | Reduces breakdowns and costly downtime.

			HAZARDS		
HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Battery maintenance and charging	Acid burns, fire, explosion	Performing battery work in-house ensures reliable starts for saws, mowers and plant, avoiding hire costs and downtime.	Charge in a ventilated area; keep sources of ignition away. Check terminals for corrosion; isolate before work. Use insulated tools, face/eye protection and acid-resistant gloves; neutralise acid with bicarbonate. Secure batteries upright; follow maker guidance on lithium packs. (ALL)	Operatives	Before Measure: High After Measure: Med
Engine exhaust and carbon monoxide	Poisoning, asphyxiation	Short, controlled indoor run-ups enable diagnostics regardless of weather, so essential kit returns to service faster.	Avoid indoor testing; if unavoidable, duct exhaust outdoors and monitor CO. Open doors and use fans to create flow-through ventilation. Limit run time; never idle in enclosed vans. Brief on CO symptoms; stop work and evacuate if monitors alarm or symptoms present. (ALL)	Operatives	Before Measure: High After Measure: Med



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Fuel handling and storage	Fire, explosion, chemical exposure	stations, maintain productivity on dispersed sites, and keep time-	Store petrol/diesel in approved, labelled containers within a ventilated, bunded cabinet; segregate from oxidisers and ignition. Keep quantities to task need. Inspect cans and hoses for damage. Provide spill kits, extinguishers, no-smoking signage, and update the chemical inventory. (ALL)	Operatives, public	Before Measure: High After Measure: Med
Fuel spills and environmental release	Ground contamination, water pollution	Handling fuel onsite enables continuous operations in remote or client gardens without service depots, while controls keep impacts tolerable.	Refuel over drip trays away from drains; deploy drain covers before starting. Carry granules/absorbent pads and double-bag contaminated waste for licensed disposal. Report and record any release. Wash down only after cleanup; prevent run-off to watercourses and reinstate barriers. (ALL)	Operatives, environment	Before Measure: High After Measure: Med
Hydraulic pressure release	Injection injury, fluid burns	site keeps loaders and	Lower implements to ground, chock and support; apply pressure dump controls. Use rated hose caps and a card-edge test for pinhole leaks—never hands. Replace damaged hoses with like-for-like; torque to spec. Wear face shield and gauntlets when cracking joints; keep a spill tray in place. (ALL)	Operatives	Before Measure: High After Measure: Med
Manual handling of heavy parts	Back strain, musculoskeletal injury	Handling components internally avoids waiting for lifting contractors, keeping small repairs economical and swift.	Assess weight, shape and grasp; split assemblies where possible. Use hoists, dollies or two-person lifts; keep loads close, back neutral, and steps clear. Plan the path and set down points; wear cut-resistant gloves. Warm up before repetitive tasks and rotate duties to reduce fatigue. (ALL)	Operatives	Before Measure: High After Measure: Med



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Refuelling hot engines	Burns, fire ignition	service the same shift,	Shut down equipment and allow cool-down; prohibit refuelling on or near hot surfaces. Refuel outdoors on level ground with a funnel or auto-stop nozzle; keep absorbent pads under the point. Cap containers immediately. Reinstate guards before restart and conduct a quick leak and vapour check. (ALL)	Operatives	Before Measure:  High  After Measure:  Med
Rotating parts during test runs	Entanglement, impact injury	Running controlled test cycles proves faults are fixed before redeployment, preventing breakdowns mid-job and client disruption.	Agree a test area and set exclusion zones; secure loose clothing and tie hair. Use remote start where available; keep hands and tools outside guards. Stand clear of belts, PTOs and fans; confirm guards refitted before running. Stop and isolate before any adjustments between runs. (ALL)	Operatives, bystanders	Before Measure:  High  After Measure:  Med
Static discharge during refuelling	Ignition, fire, burns	Allowing on-site transfers speeds turnarounds between tasks and sites, which is essential for mobile teams with multiple small engines.	Use anti-static cans and bond container to the machine; avoid decanting between plastics in dry, windy conditions. Keep the nozzle in contact with the filler neck. Do not refuel inside vehicles or on trailers. Wear natural-fibre clothing; avoid synthetic layers that build charge. (ALL)	Operatives	Before Measure: High After Measure: Med
Stored energy in blades and springs	Cuts, amputation, crush	Servicing blades and mechanisms restores cut quality and efficiency, reducing repeat passes and fuel use across large areas.	Block moving parts; fit guards and chocks before work. Release spring tension with approved tools and follow manufacturer sequences. Rotate flywheels to safe positions; remove spark plugs on small engines. Keep hands clear of cutting edges; use blade clamps and sheaths for handling. (ALL)	Operatives	Before Measure: High After Measure: Med



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Welding or hot work near fuel	Fire, explosion, burns	Doing limited hot work onsite avoids machine transport and third-party delays, keeping programmes and budgets on track.	Issue a hot-work permit; move fuel and combustibles 10 m or shield with FR covers. Test atmosphere; provide a fire watch with suitable extinguishers. Ventilate; control sparks and slag. Earth clamps close to the work; check for hidden tanks or residues that could off-gas. (ALL)	Operatives	Before Measure: High After Measure: Med
Working at height on machinery	Falls, fractures		Use a podium step or mobile platform; avoid standing on tyres or buckets.  Maintain three points of contact; fit guardrails on platforms. Keep surfaces dry; use tool lanyards. Exclude people below; never overreach. Descend to reposition rather than stretching; inspect access gear before use. (ALL)	Operatives	Before Measure: High After Measure: Med
Yard traffic and plant interface	Collision, struck- by injuries	, ,	Set a separated maintenance bay with barriers; use hi-vis and site speed limits. Appoint a banksman for movements; extinguish engines before approaching. Mark pedestrian routes; apply reversing alarms and beacons. Schedule fuelling away from peak movements; communicate on radios. (ALL)	Operatives, drivers, public	Before Measure: High After Measure: Med
Competence, supervision and briefings	Errors, unsafe practices	Concentrating skilled maintenance in the team raises repair quality and fleet uptime, supporting dependable service delivery.	Authorise maintainers/refuelers by role; verify competence on the specific model. Deliver a pre-task brief covering hazards, isolation points, torque specs and test procedures. Supervise new staff; use checklists, sign-off sheets and stop-work authority to catch errors before release. (ALL)	Operatives	Before Measure: High After Measure: Low



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Compressed air misuse	Eye injury, lacerations	Using compressed air speeds cleaning and tool operation, turning round machines quickly between tasks.	Limit pressure at the gun; never use for cleaning skin or clothing. Wear eye protection and guard against flying debris. Use safety nozzles with relief ports; check hoses for damage and whip-checks at couplings. Depressurise before disconnecting; secure cylinders upright and cap when stored. (ALL)	Operatives	Before Measure:  Med  After Measure:  Low
Electrical isolation and lockout	Electric shock, arc flash	Accepting the brief disruption of LOTO enables deeper, higher-quality maintenance that extends machine life and reduces future failures.	Apply lockout/tagout to battery, spark, mains, and auxiliary feeds; verify zero energy by test-for-dead. Bleed capacitors and isolate chargers. Keep keys in a lockbox; attach personal locks and tags. Record isolation points on a permit and perform a controlled re-energisation check. (ALL)	Operatives	Before Measure: High After Measure: Low
Security and unauthorised access	Theft, vandalism, fuel loss	Protecting fuel, keys and machines preserves operational continuity and avoids sudden capacity gaps that jeopardise contracts.	Control keys and fuel cards; lock stores and isolators. Park machines disabled (e.g., battery disconnected) when unattended. Supervise visitors and contractors; sign in and brief. Remove fuel cans from vehicles overnight; CCTV or lighting where risk warrants; report losses promptly. (ALL)	Operatives, organisation	Before Measure:  Med  After Measure:  Low
Slips and trips from oils and tools	Sprains, fractures	Accepting workshop activity in live yards speeds repairs close to the job, cutting haul times and idle labour.	Keep a clean floor policy: lay absorbent mats under work, wipe spills immediately, and bin oily rags. Route leads and hoses overhead or with covers; maintain clear walkways. Use anti-slip footwear and good lighting. Store tools in trays, not on the floor; mark wet areas. (ALL)	Operatives, visitors	Before Measure:  Med  After Measure:  Low



HAZARD	RISK	RISK BENEFIT	MEASURE	RISK TO	RISK LEVEL
Solvent and degreaser exposure	Skin irritation, respiratory effects	Using cleaning agents in maintenance returns parts to spec, enabling accurate inspections and longer service intervals.	Choose aqueous or low-VOC products where possible; decant small quantities into labelled bottles. Wear nitrile gloves and eye protection; ensure crossventilation or LEV. Keep away from pilots and heaters; store rags in a lidded fire-safe bin. Wash hands before breaks; apply barrier cream. (ALL)	Operatives	Before Measure:  Med  After Measure:  Low
Support failure of jacks and stands	Crush injury, fatality	underside repairs without sending machines offsite,	Raise on level, firm ground; chock wheels and isolate drives. Use rated stands at manufacturer lift points; never rely on a jack alone. Place spreader pads on soft ground. Shake-test stability before crawling under; keep body clear of pinch points and use mechanical locks where fitted. (ALL)	Operatives	Before Measure: High After Measure: Low
Unpredicted risks	Illness, injury, death		Continuous risk monitoring conducted by all staff. Any unforeseen hazards must be reported promptly to supervisors or management, with immediate corrective action taken as necessary. (ALL)	All	N/A

	NC	DTES		
Extra Notes & Activity Evalu	ation:			
Completed by	Reviewed/Approved by	Risk Assessment Date	<b>Review Required Date</b>	2