

COMBE MILL SOCIETY



MAINTENANCE PLAN

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REGISTER

Issue	Date	Reason for change	Appr	
A.0	24/10/17	Work in progress		
B.0	14/02/23	Updated		
B.1	26/09/23	Check lists added		
B.2	09/10/23	Revised following review with Nigel Evans		
1	14/11/23	Issue for trials		



Introduction

This Maintenance Plan sets out a framework for the maintenance management of Combe Mill, its contents and its supporting infrastructure. The purpose of the Plan is to provide a focus for maintenance activity together with detailed guidance for all those involved in these tasks. It should also provide the community and funding bodies with confidence that their investment in the site will be sustained and continue to benefit both the heritage and people for many years to come.



Reviewing the Plan

Over time practical experience of maintaining the Mill and new information will come to light and perceptions will change about management priorities. The maintenance plan will need to evolve to reflect these changes.

We recognise that maintenance planning and implementation is a continuous cycle of consultation, decision-making, monitoring and reporting. As such, the maintenance plan is seen as a 'living' document that will be reviewed and updated regularly.

The Plan will be formally reviewed annually in order to:

- Evaluate the effectiveness of interventions carried out over the past year and capture learning
- Assess the effectiveness of the maintenance activities in achieving the objectives and aims laid out in the plan
- Identify areas for improvement

Following this annual review, the maintenance plan will be adjusted to incorporate any agreed revisions and recommendations.

Presenting maintenance requirements

Weekly activities will be displayed at the appropriate work area and be used as a tick-box record of maintenance being done.

Other, less frequent activities, will be listed in the cover of the Log Book for each area.

Keeping records

A log book will be maintained for each area to record all work done, when and by whom.

In particular records must be kept and conclusions noted of all remedial activities identified during maintenance.



Action plan

Signage - Exhibition / Interpretation / Warnings

Responsibility of: Heads of relevant areas

Section	Item	Maintenance action required	When
Exhibition	Graphics panels	Area by area check of displays especially in terms of condition and legibility. See check lists	Weekly and Monthly
	Display lighting	Regular inspection/proactive bulb replacement until need for LED replacement	Monthly
	Millie cat-flaps - nine	regular inspection/remedy on need basis – see check list	Weekly & after steaming open days
	Cut-out figures of workers - three	Regular inspection/remedy on need basis – see check list	Annually
	Information signs - outdoor	Keep clear of graffiti and maintain by regular inspection/remedy on need basis. – see check list	Monthly
	Information signs - indoor	Regular inspection/remedy on need basis. – see check list	Monthly
	Leaflet Holders	Check for damage, clean and re-stock <ul style="list-style-type: none"> • Alongside engine room door • Far side of river bridge 	Weekly
	AV Equipment	Check for damage and rectify as necessary.	Monthly

Maintenance Plan



Section	Item	Maintenance action required	When
	Enclosures	– see check list	
	AV Hardware	Check functionality of display and speakers	Monthly
	AV Software	Check functionality	Monthly

Art works and photographs

Responsibility of: **t.b.a**

Section	Item	Maintenance action required	When
	Watercolours in Foreman's Office and Lift Lobby	Check for fading, dust build-up and damage. – see check list	6 monthly
	Reprint photos in Tea Room	Check for fading, dust build-up and damage. – see check list	6 Monthly
	Paintings in Lift Lobby	Check for fading, dust build-up and damage. – see check list	6 monthly

Maintenance Plan



Interior of the Mill

Responsibility of: **t.b.a**

Section	Item	Maintenance action required	When
Whole of interior	All internal areas	Annual condition survey against photographic baseline survey	Annual 5-10 yearly
Interiors Generally	Door & Window decoration	Periodic cleaning. Painting re-decoration	Quarterly 5-10 yrs.
	Areas around machinery	Check for weeping, stains etc that may be evidence of a build-up of trapped or leaking fluids.	Monthly

Maintenance Plan



Exterior and external areas

Responsibility of: **t.b.a**

Section	Item	Maintenance action required	When
Whole of exterior	All exterior areas	Annual condition inspection against photographic baseline survey	Annual 5-10 yearly
Foundations	Pad foundations to Tea Room	Check for settlement.	Monthly for first year then annually
Roofs	Roof coverings	Check for slipped tiles	Monthly
	Roof coverings	Check for sheet metal and apex capping damage	Monthly
Rainwater disposal	gutters, downpipes and drainage connections	Cleaning gutters Check condition of gutter fastenings, repair or adjust as required. Drain rodding	Annually Annually As and when required.
External walls	Repairs to stonework including repointing	Check for condition and signs of movement	5yr
Joinery	Doors and windows	Cleaning Decoration Ironmongery – ease and adjust Glazing – check for breakages and replace	Bi-annually 5yrs Yearly Monthly
North entrance	New access ramp and steps	Sweep and cleaning.	Weekly

Maintenance Plan



Section	Item	Maintenance action required	When
		Check condition of step nosings and surfacing, repairs as required.	Annually

Maintenance Plan



Services and facilities

Responsibility of: Terry Bailey

Section	Item	Maintenance action required	When
Electrical			
Infrastructure or utilities	Electrical Installation	Periodic Testing & Inspection	1 per 5yrs
	Emergency lighting	Testing - rota	On-going
	Fire Detection/Alarm system	Functional testing - rota	On-going
	Fire Detection/Alarm system	Test & Inspection RFS Ltd	Annually
	Intruder Alarm	Test & Inspection	Annually
	Passenger lift	Service contract & Reactive maintenance Wessex Lifts	Bi-annually
	Portable appliances	Regular testing for safety - PAT	Scheduled
Other	Motorised line shafting	Test and Inspection	Annually
	Metal working line shafting	Test and Inspection	Annually

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Section	Item	Maintenance action required	When
Mechanical			
Utilities	Air Source Heat Pump	Routine servicing. ORAC Ltd	Annually
	Heating System Water Glycol Injection Content.	Routine top-up checks. ORAC Ltd	Annually
	Electric Water Heater	Routine servicing.	Annually
	Microfil Water Pressurisation Unit	Check.	Annually
	Fan Convectors	Routine checks.	Annually
	Oil Supply Line to Steam Boiler	Routine checks.	Annually
	Steam Boiler and Steam Supply Lines	Routine checks.	Annually
	Fire extinguishers	Routine checks and refurbishment RFS Ltd	Annually

Maintenance Plan



All areas

Responsibility of: **t.b.a**

Section	Item	Maintenance action required	When
Visitor areas	Handrails, seating, doors and handles	Dust and wipe clean	Weekly – more often in forge
	Litter	Remove	As arising
	Rubbish	Remove	As arising
	Non display items	Store away from view	As arising

Maintenance Plan



Foreman's Office area

Responsibility of: **t.b.a**

Section	Item	Maintenance action required	When
	Utilities area kitchenette sink and plumbing connections.	Regularly check and if required clear bottle trap waste pipe.	Monthly
	Toilet	Toilet and fittings cleaning.	Weekly
	Overhead door closer.	Lubrication as required. Check fastenings.	5yr.
	Bookcase and sliding door	Check structural condition.	Annually
	Stairs to pattern shop	Check structural condition. Check condition of treads / nosings / handrails and repair as required	Annually Monthly
Floors	Wood	Cleaning Inspection for wear	Weekly Annually
Floors and surfaces	Worktop finishes	Cleaning to hygienic standards	Daily as required
	Bell Turret store	Inspect bell rope condition	Annually
	Stackable seating	Check condition is fit for safe use and are clean	Annually
	Folding tables	Check condition is fit for safe use and are clean	Annually

Maintenance Plan



Beam Engine

Responsibility of: Head of Technical Area – Peter Hurst

Section	Item	Maintenance action required	When
Engine room		Sweep clean all surfaces and remove rubbish	
		Put away non-display items	
	Safety barriers	Confirm integrity of fence around engine and that gate is secured	Weekly
Beam Engine	Piston packing gland	Re-pack	Every 2 yrs?
	Lubrication points	Oil	Each run
		Winterise all bare steel moving parts	Annually
		Clean and degrease	Annually

Maintenance Plan



Small Engines

Responsibility of Head of Technical Area – Brian Layt-Williams

Section	Item	Maintenance action required	When
Cleaning	As for all areas	As for all areas	As for all areas
General Area	Oil separator	Empty any water	Weekly
	Safety barriers	Confirm integrity of fence around engines and that gates are secured	Weekly
	All four engines	Top up steam oil levels - 5 positions	Monthly
		Top up Alto 100 oil levels - 16 positions	Monthly
		Inspect all machine parts for wear, noting condition in logbook.	Monthly
		Examine all drive belts noting condition in log book	Monthly
		Clean machines removing any oil and smoke deposits	Monthly
		Dispose of water/oil in red buckets into oil separator	Monthly
		Inspect air compressor	Twice yearly
		Winterise all bare steel moving parts	Annually
		Degrease and cover all four engines in October	Annually
		Change/top-up Alto 100 oil as required	Annually
		Degrease all red buckets	Annually



Historic Clocks

Responsibility of Head of Technical Area – Clive Brimson

Section	Item	Maintenance action required	When
Cleaning	As for all areas	As for all areas	As for all areas
	Safety barrier	Check rope barriers and in place and secure	Weekly
	All clocks	Maintenance follows the guidance given in <i>Church Clocks: Maintenance</i>	
		Inspect going train	Each open day and annually
		Inspect escapement	Each open day and annually
		Inspect bushes	Each open day and annually
		Inspect pinions	Each open day and annually
		Inspect winding click	Each open day and annually
		Inspect suspension spring	Each open day and annually
		Inspect weights and pulley lines	Each open day and annually

NOTE: There is file for each clock containing all information relevant to maintenance.

Maintenance Plan



Model Engines

Responsibility of Head of Technical Area – Bob Wheeler

Section	Item	Maintenance action required	When
Cleaning	As for all areas	As for all areas	As for all areas
	Hot air engines	Check operation of display items and that packaging is intact for those for sale	Weekly
	Drive belts	Check for damage and replace as needed	Monthly
	Air compressor	Maintain according to manufacturer's instructions and inspect	Six -monthly
		Drain and clean out oil/water separator	Annually
	Steam Supply	Check for leaks	Monthly
	Gas supply	Check installation for leaks	Monthly
	Models	Winterise all bare steel moving parts	Annually
	Models	Degrease and cover all engines in October	Annually

Maintenance Plan



Blacksmith's Forge

Responsibility of Head of Technical Area – Bob Kitchener

Section	Item	Maintenance action required	When
General Area	Work area	Clean debris	Weekly
	Forge hearth ironwork	Measure cast iron crack and record in log book	Monthly
	Chimney	Sweep	Every 5yrs
	Forge hearth	Brush off soot and dust	Monthly
	Overhead beams	Brush off soot and dust	Annually
	Surround to forge	Tidy steel stock	Weekly
	Forge blower	Inspect and maintain to manufacturer's instructions	Annually
	First Aid Equipment	Check if in-date and replace if needed	Annually
	Pillar Drill (wall)	Lubricate	
		Check all fittings	
	Metal cupboard	Sort and tidy and discard old stock and rubbish	Bi-annually

Maintenance Plan



Waterwheel + Gear Room + Head Race

Responsibility of Head of Technical Area – Richard Newman

Section	Item	Maintenance action required	When
Gearing	Wooden teeth <ul style="list-style-type: none"> • Pitgear • Drive gear 	Inspect and replace	Monthly
	Metal Teeth <ul style="list-style-type: none"> • Spur gear • Lineshaft drive gear 	Inspect for damage and corrosion	Annually
Axle tree	Wood shaft	Check timber for rot and deterioration	Annually
	Gudgeon fixing	Check tightness	Monthly
	Bearing lubrication	Grease	Monthly
	End fixings	Maintain moisture	On-going
Water Wheel	Buckets	Check for rust and remedy if found	Monthly
	Balance weights	Check balance if fitted	Annually
Head Race	Inlet sluice	Check for damage	Annually
	Stone retaining walls	Inspect for integrity and weeds – remove weeds	Monthly
	Fencing	Check fencing for integrity	Monthly
Tail Race	waterway	Check silting and weed growth	Annually

Maintenance Plan



Section	Item	Maintenance action required	When
Electric Pumps	Submersible	Maintain in accordance with manufacturer's instructions	
	Re-circulation – blue pump	Maintain in accordance with manufacturer's instructions	

Maintenance Plan



Line Shafting

Responsibility of Head of Technical Area – ??

Section	Item	Maintenance action required	When
System	Bearings	Lubricate	Each run
		Check for wear	Annually
	Drip trays	Empty	Monthly
	Belts	Check suppleness	Annually
	Belts	Check joins	Annually
	Guarding	Check	Annually

Maintenance Plan



Boilerhouse

Responsibility of Head of Technical Area – Richard Newman (acting)

Section	Item	Maintenance action required	When
Boiler	Boiler shell	Full integrity and pressure check	Every 10 yrs
		Pressure and functional check	Annually
Burner	Burner	Test and set-up Weishaupt	Annually
Feed water	Tank		
	Pump		
Tannin feed		Check for leaks and blockages	Each run
		Check pump seals and replace as required	Each run
Water demin	Demin unit	Maintain as per manufacturer's instructions	Annually
Oil storage		Check condition of tank and its installation	Annually
		Check condition of wire rope and pulleys for fuseable link shut-off system	Annually
Controls	Boiler panel	Functional test	Annually
	Burner panel	Functional test	Annually

Maintenance Plan



Metal Working Area

Responsibility of Head of Technical Area – Derek Goddard

Section	Item	Maintenance action required	When
	All surfaces	Keep free of dirt, swarf, slips and trip hazards	Weekly
	Within area	Remove non-display items out of sight	Weekly
	Machinery	Clean and check tension of belts	Monthly
		Bearings – oil and clean off surfaces	Monthly
	Windows and glass	Clean and polish	6 monthly
	Hand tools	Replace to storage when not in use	Weekly
	Bright steel objects	Polish lightly and oil for protection	End of season
	Display objects	Re-place to normal locations and add new	Weekly
		Check labelling is clean and in place	Weekly
		Keep heavy objects away from table edges	Weekly

Maintenance Plan



Pattern Shop – General

Responsibility of: **t.b.a**

Section	Item	Maintenance action required	When
	Display boards	Keep free of dirt. Check for correct operation. Repair as necessary	Weekly
	Windows and glass	Clean and polish	6 monthly
	Display objects	Re-place to normal locations and add new	Weekly
		Check labelling is clean and in place	Weekly
		Keep heavy objects away from table edges	Weekly

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Woodworking Area

Responsibility of Head of Technology – Tony Thurlby

Section	Item	Maintenance action required	When
	All surfaces	Keep free of dirt, sawdust, woodchips, slips and trip hazards	Weekly
	Within area	Remove non-display items out of sight	Weekly
	Tools	Check for condition and replace in proper locations	Monthly
	Work in progress	Put in safe place	Weekly
	Windows and acrylic screens	Clean and polish	6 monthly

Maintenance Plan



Footman's Bathroom

Responsibility of: **t.b.a**

Section	Item	Maintenance action required	When
	Floor	Check free from rubbish and dust.	Weekly
	Switchboards	Check access is clear of obstruction	Monthly
	Racking	Check storage racking is secure and objects safety stacked	Monthly

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Tea Room

Responsibility of Head of Area – Wendy Foster

Section	Item	Maintenance action required	When
	All	Clean all surfaces	Weekly
	Servery	Maintain food hygiene and log book entries	Weekly
Floors	Carpet/ vinyl finishes	Cleaning Inspection for wear	Weekly Annually
Floors and surfaces	Vinyl and worktop finishes	Cleaning to hygienic standards	Daily as required
		Joins in vinyl flooring	Monthly
	Interface with decking	Check for ingress of water and timber rot	Monthly
	Decking railing	Check for chipping and retouch paintwork	Six monthly
	Sun awning	Check condition of fabric and frame	Six monthly
Internal WC		Clean all surfaces	Weekly
Access WC		Clean all surfaces	Weekly

Maintenance Plan



Grounds and premises

Responsibility of Head of Area – Terry Bailey

Section	Item	Maintenance action required	When
Grounds	Grassed areas	Maintain as required for public and volunteer access	Weekly or as needed
	Gravelled areas/paths	Maintain as required for public and volunteer access	Bi-annually
	River banks	Maintain as required for public and volunteer safety	Bi-annually
	River bank fencing	Maintain as required for public and volunteer safety	Bi-annually
	Trees	Inspect for safety	Bi-annually
	Planted containers/flowerbeds	Maintain as required	As per season
Environs	Car Park	Check safe for public use	Monthly
	Car Park lighting	Check in pace and working	Bi-annually
	River gate and bridge	Check safe for public access	Bi- annually
	Meadow walkways	Check safe for public access	Bi- annually
	Meadow pathway	Check safe for public access and cut grass if required	Monthly
	Tailrace gate and bridge	Check safe for public access	Bi- annually

Maintenance Plan



Costs and Budgets

Topic	FY >>>	2019/20	2020/21	2021/22	2022/23	2023/24	
Maintenance of premises		£1,388	£899	£4,614	£3,387	£2,750	
Maintenance of displays		£231	£0	£627	£543	£680	
Maintenance of equipment		£190	£267	£1,432	£1,123	£925	
Maintenance of landscape		£0	£0	£0	£0	£300	
Maintenance of waterwheel		£2,923	£100	£509	£0	£0	
		<i>Actual</i>	<i>Actual</i>	<i>Actual</i>	<i>Actual</i>	<i>Budget</i>	



Proposed Log Books

Boiler House	Existing
Beam Engine	Existing
Small Engines	Existing
Historic Clocks	Existing per clock
Model Engines	
Forge	
Mill displays and signage	
Outdoor areas	
Building and fabric	
Tea Room	
Woodworking	
Metalworking	
Pattern Shop/Tinkering Area/ Footman's Bathroom	
Foreman's Office	
Line Shafting	