

9<sup>th</sup> May 2023

Dear Lorraine and Mark,

I enjoyed our meeting on Thursday 4<sup>th</sup> May to discuss how I can support the refurbishment of Pilcot Mill.

I can provide a conservation led approach to best restore and conserve the waterwheel, the mill's internal workings and related objects. As always, I will follow best practice and adhere to professional standards judgements and ethics. The options for actions and the rationale, for the selection of a particular action or decision to take no action, will be recorded to inform future custodians.

Along with providing full treatment options, I can provide all supporting documentation. This will include condition reports and treatment records of each aspect of the mill's internal machinery and wheel, accompanied with photographic documentation and inventories.

I can provide all practical skills relevant to the conservation /restoration / interpretation of the mill workings. I **can** complete the following:

*NB: The examples below are not exhaustive.*

- Repair or replace the waterwheel axle assembly
- Produce new wheel buckets and soleplates assemblies
- Rebuild the waterwheel to either static or operational condition
- Produce a new sluice incorporating cast racks to suit existing pinions and replacement plummer and bearings. (Direct replicas can be produced)
- Restore/ conserve the sluice operating mechanism
- Clean all internal machinery and protect them with paint and or waxes
- Produce / repair any missing components in line with original design, including the production of patterns, casting, machining, forging and fabrication
- Produce replacement tuns / hoppers / horse /damsels and shoes
- Liaise with outside contractors over design and conservation principles.
- Provide a cohesive engineering and conservation solution to a problem or design, one that isn't intrusive to the originality of the object yet achieves the desired client outcome. E.g. the proposed glass floor sections
- I can be available at short notice to meet with contractor's /consultants to provide advice on conservation and engineering issues

I **cannot** provide the following:

- Project manage or take responsibility for general building works
- Implement general building works (trades skills)



Recommended initial next steps:

- A rough idea of your expected project timescales would be much appreciated, I can then make sure I plan time to meet your expectations.
- I conduct an assessment on the waterwheel's current axle condition so a decision and design can be produced on how best to repair or replace. I would suggest this needs to be addressed as soon as possible being as it provides the only support to the wheel frames. The outside gudgeon is currently not supported due to rot and decay in the axle end.
- A decision made on whether the wheel will be rebuilt with new buckets and soleplates so a design and costings can be produced if necessary.
- Inventories completed of associated equipment and space cleared to allow access for work.
- Photographic records constructed detailing waterwheel, internal workings and related objects.
- Certain parts of the machinery can then be removed off site for cleaning and restoration to commence.

My hourly rate is £35. Once initial assessments are carried out, I can provide estimates. I estimate no more than three days for initial assessments to be conducted, should you wish me to continue?

I currently have in my care your folder of historical information/receipts etc for the mill. I propose to scan relevant information to form part of the conservation records with your permission.

Lastly, the images at the end of this document aim to provide an insight into the type of work I can offer, relevant to your mill.

I hope this is all the information you require at this stage. Once again, many thanks for considering G & H Spender Engineering to assist with your project. It's been a pleasure to meet with you both. Please do not hesitate to contact me should you have any queries.

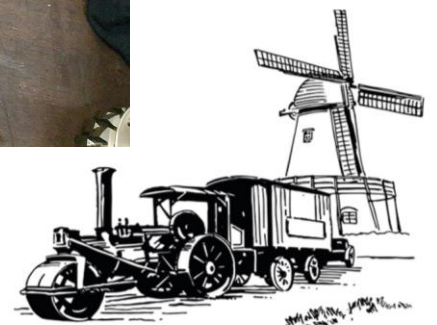
*Kindest Regards,*

Nigel Spender





Whitchurch Silk Mill internal workings  
before conservation /restoration



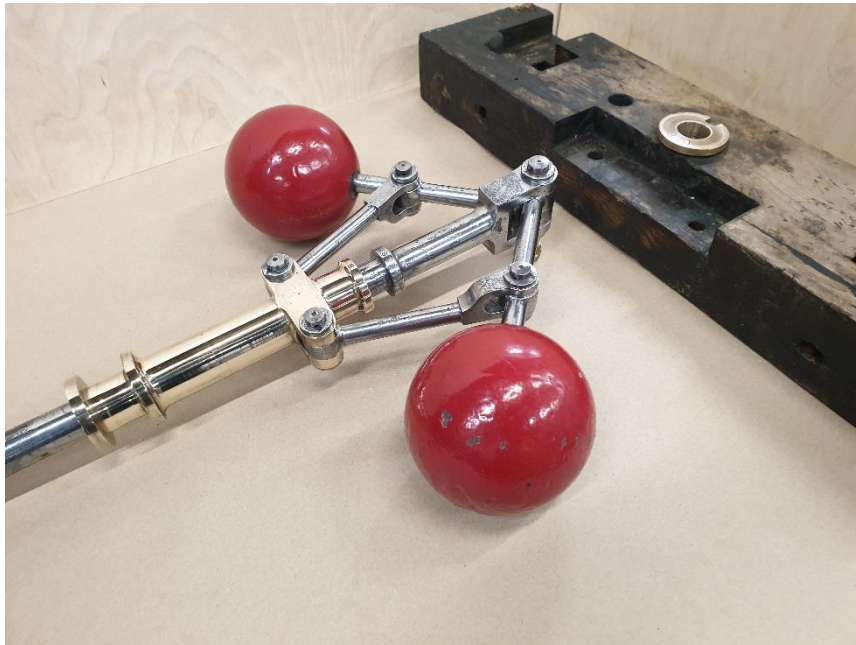




Whitchurch Silk Mill internal workings before conservation /restoration



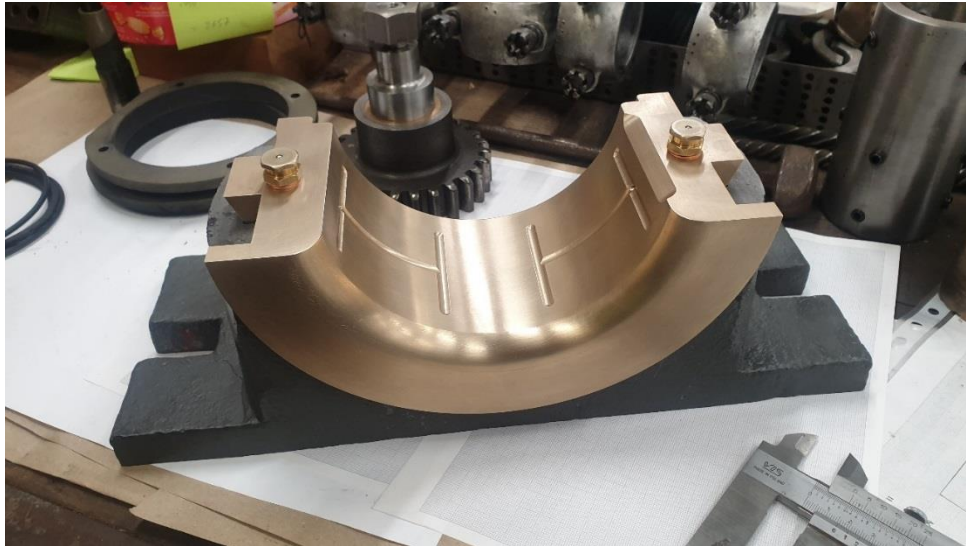




Above: Conserved Governor from Whitchurch Silk Mil

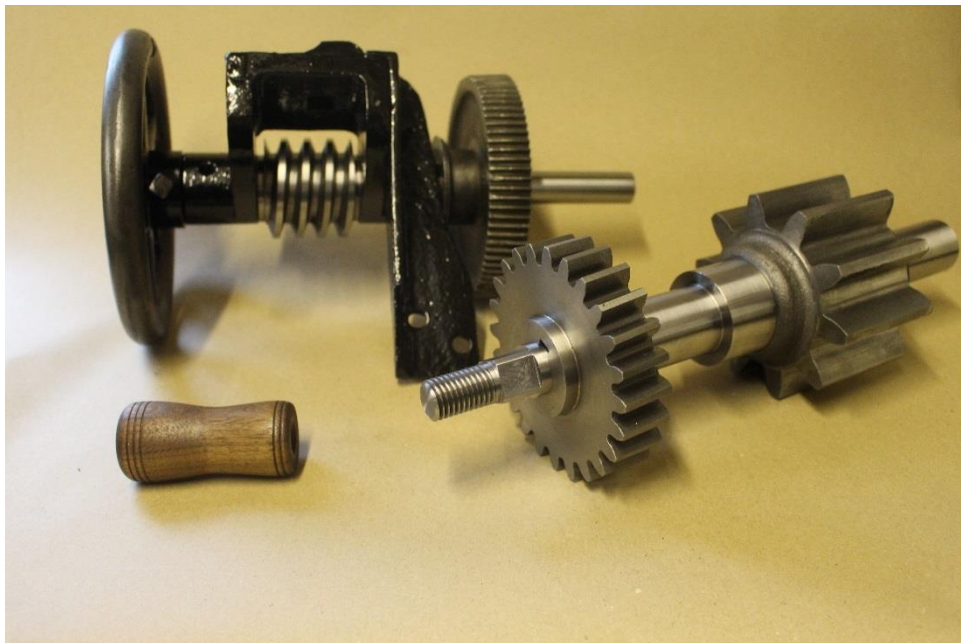
Below: Newly produced sluice gearing assembly (right) to replace worn original (left) -WSM





Above: New bearing shell produced for waterwheel axle – WSM

Below: Newly produced sluice control assembly - WSM





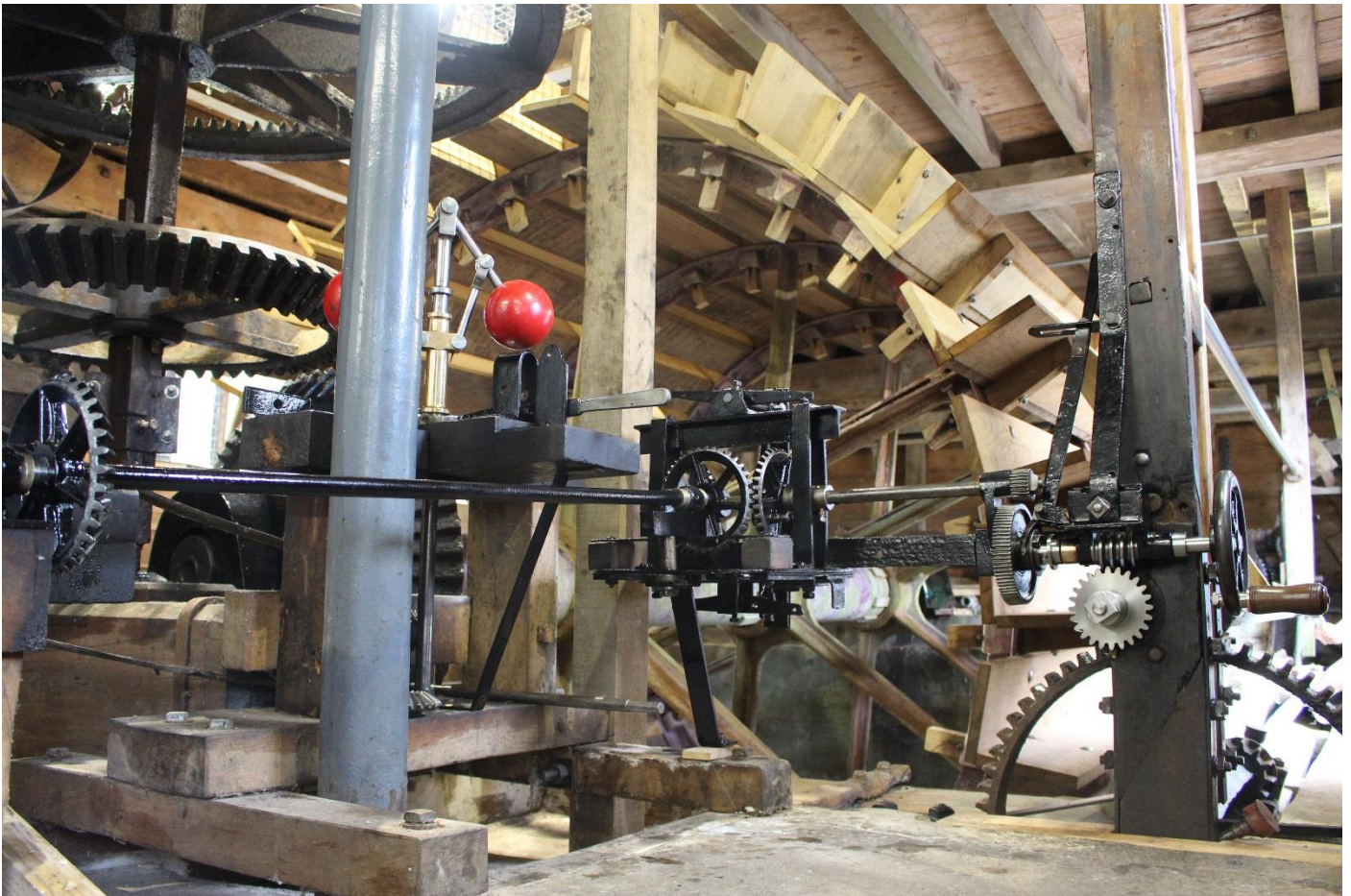


Re assembly of  
Whitchurch Silk  
Mills Waterwheel





Completed conservation / restoration of  
Whitchurch Silk Mill



Left: Waterwheel axle after machining in situ. A process that could only have been achieved after design and production of complex bespoke tooling.







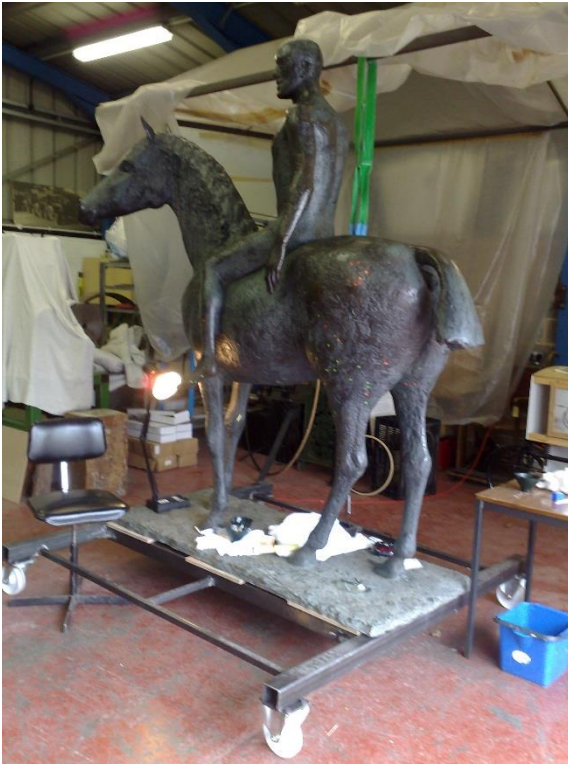
19<sup>th</sup> Century Burmese living bell

Top left: Decorative end missing. Spindle damaged.

Bottom left, right: Casting produced in correct composition bronze and fitted to original spindle. Coloured to match.







Elisabeth Frink Horse and Rider -1974 bronze sculpture

Sculpture removed for conservation, fitted on a stand designed and made by G & H Spender Eng. Hot micro crystalline wax applied once cleaned.

Stainless steel mounting base produced in line with HCC architects drawing.

