

DATA



A newly restored clock dial, expertly finished with finest quality gold leaf, will enhance the presence of any building, whether it be a town hall, a church, a public feature or a free standing clock tower. Dial restoration is an ideal way of showing that a clock is valued and respected.

## DIAL RESTORATION

TIME/MOVEMENT • RETAIL/URBAN • DESIGN/MANUFACTURING • INTERNATIONAL

# Clock Dial Restoration

Dial restoration may be part of a major refurbishment programme or a stand alone project. This activity has been part of our core business for centuries and we are proud to continue with this work restoring clock dials to their original splendour.

## ON-SITE RESTORATION

Depending on the condition and type of clock dial, full restoration can often be achieved in-situ, either from scaffolding or our own rope access equipment. In-situ restoration saves time and therefore represents the quickest and most cost effective way to carry out the restoration programme. In some cases, for instance where the design is applied directly to a wall surface, it is the only method possible.

## WORKSHOP BASED RESTORATION

Where damage has occurred or there is evidence of structural deterioration or when major work is being carried out on the fabric of the building it is usual for us to remove dials for restoration in our workshop. If scaffolding is not available, removal and re-fitting of dials may be possible using rope tackle or portable access equipment.

Full factory restoration of a clock dial will include cleaning and shot blasting back to base metal prior to the application of high quality paints, followed by gilding and re-glazing as appropriate.

## COMPLETE DIAL REPLACEMENT

If wear or damage to a clock dial makes repair impractical, we can provide a complete replacement, replicating the former colour and style.

We can build new dials using traditional materials such as cast iron, wood, copper and glass, or provide an alternative solution where appropriate, using acrylic or GRP if this is acceptable to conservation authorities. We are specialists in the manufacture and installation of new GRP dials in traditional Roman designs, and have tooling for a wide range of sizes.

## COMPLETE CLOCK RENOVATION

For dials and cases, such as exterior projecting clocks, restoration usually takes place in our workshops and includes full overhaul and re-finishing. If it is part of a major building restoration project, the clock can be re-installed when other site work is complete.



Before: copper church clock dial which has weathered and faded.



After: re-installed dial after strip, re-paint and re-gilding in our workshops.



Original hand-beaten copper convex church dial re-painted and re-gilded on site.



Church dial re-painted on stone: re-gilding using computer cut mask of original design.



Cast iron skeleton dial being re-glazed with translucent opal acrylic for backlighting.



GRP replacement for a corroded cast iron dial, installed in the original surround.



Original hand-carved hardwood clock being re-gilded after repair in joinery workshop.



Station clock renovation including revival of inner ring of numerals.

## HERITAGE

Many tower clocks are governed by the regulations of heritage and conservation organisations, such as the Council for the Care of Churches. All our work is undertaken in accordance with these requirements, so that the historical integrity of your clock is not compromised.

## MAINTENANCE & SAFETY

Ageing and weathering can cause safety problems such as loose or corroded dial fixings. Our work includes checking, and rectifying fixings, and liaising with specialist contractors if more serious problems require attention.

Other parts subject to wear include external hand bearings normally only accessible from outside the building. As part of our restoration programme we would also balance the hands and the dial motion work, these being the gears behind the dial to which the hands are fixed.

## ACCESS ARRANGEMENTS

Our engineers are fully qualified in the use of rope access equipment, meeting all current Health and Safety standards. This means that very often we can carry out in-situ restoration and the removal and reinstatement of dials without the need for expensive scaffolding, although in some situations scaffolding is essential.

When available we can use scaffolding if in place for other building work and schedule our site work as needed to meet the wider project time frame.

## MATERIALS & TECHNIQUES

Only best quality materials are used, to ensure that your clock dial will retain its appearance for as long as possible.

Full factory restoration of a clock dial will include cleaning back to base metal and shot blasting, followed by application of rust retardant solutions if appropriate, zinc rich primers and high quality external two pack paint. Re-glazing if required is carried out using acrylic or glass with secure fixing and weather sealing by means of external quality silicone sealant.

Where re-gilding is required we use the finest 23<sup>1</sup>/<sub>2</sub> carat double thickness English gold leaf.

For an exact replica of an existing dial we use computer aided methods of cutting masks for the application of gold leaf or alternatively we can apply traditional dial designs from our extensive pattern stock, or by means of standard marking-out techniques.



Newly restored church clock dial, cast iron skeleton type with sheet copper backing.



Newly restored dial, hand beaten copper convex with gilded numerals and hands.



Corroded fixing which has expanded and broken the cast iron dial and stone surround.



Dialworks and hand counterbalances behind an exterior dial.



Access to a church clock dial: fully trained engineer using our safety approved equipment.



Access to a historic clock tower dial from scaffolding in place for other building work.



Applying gold size to masked areas of re-painted dial.



Removing mask after applying gold leaf to a replica dial for a stately home.

## WARRANTY

The longevity of a restored clock dial depends on local conditions. For example, coastal and industrial areas and prevailing winds will accelerate deterioration of the finish. It is difficult to be absolutely certain how long a restored dial will last but the high quality materials we use, together with well established and proven techniques, give maximum confidence in the longevity of the restoration programme.

## TIMESCALE/SITE WORK PERIODS

We recommend that on-site dial restoration is completed between the months of March and October. The winter months do not provide ideal conditions for the application of our paints and particularly the traditional gold size and gold leaf. Workshop restoration can take place at any time throughout the year.

## QUOTATIONS AND RECOMMENDATIONS

For all dial restoration work we offer a free and without obligation initial site visit. This enables our Technical Sales Engineer to determine your exact requirements, following which we can offer a full specification, with all the various options, together with appropriate quotations.

## MAINTENANCE

- Annual service visit
- Safety checks
- Free additional visits\*
- Conservation advice
- Exchange parts

## KEEPING YOUR HERITAGE INTACT

All clocks require regular maintenance visits. We operate a comprehensive clock servicing network, giving year-round cover including one scheduled annual maintenance visit. Exchange motors and weight lines, software upgrades, additional call-outs and overhaul/repair advice are also included, (all subject to certain conditions).

Please contact us for full details of our annual maintenance contract.

\*Full terms and conditions available on request.



Before: copper convex dial.



After: fully restored in our workshop.



Before: fracture in a slate dial.



After: original perfectly replicated in GRP.



Before: weathered wooden hand.



After: restored, re-painted and re-gilded.



Before: wood dial deteriorated beyond repair.



After: conservation approved GRP replacement.

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tel · +44 (0)1332 345569 fax · +44 (0)1332 290642 e-mail · enquiries@smithofderby.com web · www.smithofderby.com

