

# CLOCK REPAIRS EXPLAINED

Periodically and more so than almost any other mechanical device (because it is constantly working), a clock requires maintenance. If this is routine and the movement is in good condition then usually, a 'service' is required. If the clock has been neglected or run without maintenance then matters will worsen until eventually an 'overhaul' or even 'restoration' will be necessary. Without the correct type of repair by a specialist, a clock will not be in sufficient condition to carry a full warranty. If the clock has been maintained well and a minor fault occurs, it may only be required to repair the main fault which could be a simple matter.

It is not a good policy to carry out minor repairs on a clock that is not in good condition as this usually forces the clock to work only to a fashion, is rarely successful for any length of time and only serves to compound problems thus making an eventual satisfactory repair more expensive and in some instances, impossible! In cases when the repair price is prohibitive the clock should not be run then, no further harm should occur to it as long as it is not in a damp environment. What is most important to remember is that if a clock that has value to you is to be attended to then it must be worked on by someone who is qualified to do so. Too often, clocks are seen that have been badly repaired and the damage caused to them by unqualified people is so severe, it can never be fully rectified – at any cost. Unfortunately, in Horology, there are still many people earning a living by providing poor quality work

## **1. SERVICING:**

Though the term implies that this is a simple procedure it is not, nor can it be carried out in the owner's home. A clocks' moving parts are made up of usually two different metals moving about and rubbing against one another with a thin film of special oil separating them. The movement is exposed to the atmosphere in most cases allowing airborne grit and dust to collect between the moving parts and within the oil. This eventually thickens, becomes dirty, dries and cuts into the metal which wears it.

To carry out the servicing procedure correctly the movement must be completely dismantled, all the component parts (these can number anything up to 250) thoroughly cleaned to near-laboratory standards, checked in minute detail for damage, signs of wear, fatigue and corrosion then, meticulously corrected as necessary.

The movement must then be reassembled and rebuilt in a certain way, lubricated, adjusted, checked at every stage and finally tested. Even the simplest of clock movements can take several hours to carry out this work on and a service constitutes nothing less than the above. This should be carried out at least every five years with most clocks and more frequently on the finest; this keeps any wear or damage that may start to occur to an absolute minimum and ensures reliability. It also maintains the clocks financial value and life-span.

## **2. OVERHAULING:**

This procedure is necessary when a clock has been badly neglected or allowed to run for longer periods without attention. Bearings, pivots, teeth, levers, springs and detents will require the removal of wear and some parts may have to be made in addition to the cleaning and lubricating as mentioned earlier. Corrosion may also have set in once the oil had dried and will have to be removed. All of these points play a serious part in shortening the life of the clock as wear and corrosion can only be corrected so many times before more drastic measures are required to return the clock to a condition of good working order.

The time required to carry out these repairs and test the clock is greatly increased.

## **3. RESTORATION:**

This usually constitutes major specialised work and can only be carried out successfully by the most experienced and highly qualified Clockmakers. Quite often missing or severely damaged parts will have to be made to the exact specification of the original to ensure that the clock works correctly and that value and aesthetics are maintained. The work can easily take several weeks to complete as research, traditional methods and testing for long periods are usually necessary. The person carrying out such work will need to have a considerable amount of professional knowledge and experience as some procedures are simply not known about any longer and mostly forgotten about decades ago. Wheels and other parts may have to be made which in itself is a highly skilled practice. The clockmaker will pay attention to every necessary detail until he is satisfied that the clock is restored, is aesthetically correct and can be guaranteed. He should also give advice on how to operate the clock whilst it is in your care. Craftsmen capable of skilled clock restoration are now in short supply and therefore have a long waiting list for this type work,

their craft is sometimes considered a 'Black Art' because of the archaic methods, tools and long-forgotten processes they employ. They are duty bound not to be rushed so patience is usually required on your part too but, their skills and capabilities are often nothing short of astounding and can greatly enhance the value of good clocks. They will adhere to a code of practice and ethics such as laid down by The **British Horological Institute** but the majority of their procedures and knowledge has been attained from usually decades of unrelenting study, learning and experience that most people these days would not even consider attempting. They also have a lot of secrets that have been passed down to them from previous, older Clockmakers throughout their years in the craft.

Following major clock repairs, sometimes further adjustment may be required. This is the reason for a guarantee and the clockmaker will be happy to carry out such adjustments free of charge. These adjustments are necessary because the clock can take several weeks or even months for new parts and bearings to 'settle in' for example, a Longcase clock pendulum may begin to hit either side of the case after weeks of running; this is because the escapement eventually polishes itself perfectly thus reducing friction!

Adjustments to the time keeping may have to be fine-tuned when the clock is in its permanent position and this has to be carried out by you, the owner but, it is usually a simple matter that will be explained to you once your clock is returned.

If you feel that you would like a more detailed explanation on this subject, please feel free to ask us. It is the intention of the team at The Clockshop to fully explain what is required to repair your clock and guide you through the process. A mechanical clock after all, is a responsibility not only to you, but also to us.

I hope that this leaflet has been of some help to you.

**Mark Taylor MBHI. 'Master Clockmaker'.**

Mark Taylor is a genuine Master Clockmaker who is considered to be one of the UK's top Horologists and clock restorers.

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- A brief explanation -

By:

**Mark Taylor MBHI. 'Master Clockmaker'**

995 Christchurch Road  
BOURNEMOUTH  
DORSET - BH7 6BB

**Tel: 01202 429718**

**[www.bournemouthclocks.co.uk](http://www.bournemouthclocks.co.uk)**  
**Email: [info@bournemouthclocks.co.uk](mailto:info@bournemouthclocks.co.uk)**