



Diocese of Liverpool

TURRET CLOCKS

Most turret clocks are of historic and technological interest and have been valued by the local community particularly when they were the primary indicators of the passage of time in the community. With proper due care and maintenance the mechanical clock will last almost indefinitely and it is most unusual to find one beyond economic repair. A few survive from the seventeenth century and early eighteenth century. Late eighteenth and early nineteenth-century examples are more common and some date from even earlier than this. Early examples reflect the skill and ingenuity of the local clockmaker, while early nineteenth-century factory-produced models may illustrate technical and engineering innovations. Whatever the date and rarity, most are valued by the local community and are well worth regular care and attention.

Basic care

- ❖ The most important consideration is safety. The conditions of all access ladders and platforms should be checked regularly. Weight cables, lines and pulleys should be examined for fraying, wear or damage and the heavy clock weights should be contained within a duct. It must not be possible to walk beneath the suspended weights or fall through the aperture in an upper floor through which the weights pass. In the bottom of the weight duct should be a sandbag or similar to absorb the impact of the weights if their suspension cables or winding ratchet were to fall. The pendulum suspension should also be inspected regularly for rust, fatigue, cracking or buckling as a falling pendulum can be dangerous and will certainly cause damage.
- ❖ Oil and grease should never be liberally applied to the clock movement as, combined with dust and grit, it creates a grinding paste that will soon wear away moving parts. An oil can, tin of grease or WD40 have no place in the clock tower. Once a year, a small drop of oil should be applied to the pivots only. All other metal services should be checked for rust spots and if any are found then they can be wiped over with an oily rag and any excess oil wiped off.
- ❖ The dial motion work, hand pipes, strike cables, levers, pulleys and the bell hammers should be checked once a year for signs of wear, rust, stiffness or seizing up. Again, an oily rag lightly wiped over surfaces can prevent the spread of rust spots. Before entering the bell chamber, of course, it is important to check to see that the bells are in the 'down' position and not have

been left 'up' for ringing. Only those authorised to enter may do so, authority being given by the Captain of the Tower or the Bell Tower Keeper.

- ❖ The movement should be kept as free from dust and grit as is possible. Most clocks are within a timber enclosure, boxing, or cupboard that should keep out the worst of the dust. Inspect the enclosure carefully for cracks or holes where dust can penetrate, and where possible, seal up or renew as necessary the leather flaps where weight lines or striking rods pass through. If building work is to be undertaken in the tower or near the clock dials, stop the clock and cover it with sheeting to stop the penetration of dust and to protect from impacts.
- ❖ If the clock stops, do not try and mend it yourself or try and force any part to move. Instead call in a recognised turret clock specialist. It is a good idea to entrust the annual maintenance to a specialist. An annual servicing contract can be reasonably inexpensive and could save on costly breakdowns or part replacements in the future.

Winding

For centuries church clocks have been regularly wound up by local enthusiasts or the steeple keeper. However, in some parishes it is becoming increasingly difficult to find such volunteers. In many parishes automatic winding units are replacing this personal touch. 'Auto-winders' have improved greatly in reliability and design in recent years and it is now possible to fit them safely to most clocks. However, this should be seen as the last resort and will need a faculty. There are two kinds of mechanisms that fulfil this task:

- ❖ Automatic winders use an electric motor to wind up a weight at regular intervals which keeps the clock going and striking for several hours. At the end of the time the weight is rewound automatically.
- ❖ Direct electric drives have an electric motor coupled directly to the striking and chiming trains and is switched on and off when needed.

In all instances of automatic winding, the most important element to remember is that no change whatsoever should be made to the original character of the clock. Neither should parts be removed from the movement, even when apparently redundant.

The winder must not be attached to the clock frame, but be mounted separately adjacent to the clock. No holes should be drilled in the movement, nor clamping fixtures attached to it.

Synchronous motors are not acceptable as an adaptation on existing clocks. They entirely alter the original character of the mechanism.

ANYTHING OTHER THAN ROUTINE MAINTENANCE OF A CLOCK WILL NEED A FACULTY.

The clock of an English parish church is as much a part of the character of the building as the organ, the bells, or the monuments. The DAC seeks to encourage the care of clocks and the adoption of best practice when doing it. If any advice is required on the care of them, do not hesitate in contacting the DAC office.

© Diocese of Liverpool DAC July 2008