

# London Diocesan Fund



## Scheme for the Inspection of Churches – 2002

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### APPENDIX B

#### Pipe Organ, Bells and Turret Clock Survey and Forms

1. The forms supplied with these notes are divided into three main parts, concerning:-
  - (1) Pipe organs \*;
  - (2) The tower and bells §;
  - (3) Any turret clock ¤.

Each part is subdivided into two sections:-

**Section One** is to be completed by the Quinquennial Inspecting Architect or Surveyor;

**Section Two** is for a specialist to complete, when necessary.

2. For ease of recognition, **Section One** pages are printed on **yellow** paper, **Section Two** pages on **gold**.

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\* The organ and case should both be inspected. The case includes the display pipes and any framing and other woodwork for support and embellishment. The working parts of the organ may be enclosed within the case and/or in an organ loft, also within the console, which should additionally be inspected. The blower which delivers air to the working pipes may be located in a separate chamber remote from the organ.

§ Bells may be fixed (for stationary chiming) or for swinging back and forth; or they may be hung for ringing full circle. One or two bells may be hung in a bellcote or on a bracket or beam; a larger number are hung on a substantial steel or timber frame, supported from the tower walls.

¤ A turret clock is the kind of clock with its mechanism within a tower or roof space, linked to external dials(s) and hands, typically on the tower walls or on a projecting bracket. It may also be connected to a bell chime or chimes, and/or some tune playing device.

3. The forms are for use in conjunction with the **Quinquennial Inspection (QI)**. \*

*Alternatively, they may be used to assist inspection(s) on (an)other occasion(s). If there has been a recent inspection, and the forms are already completed by the time of a QI, they should be made available for the Inspector to see. §*

4. Each Section of the forms has one or two pages, making 14 pages of forms, printed back to back. Extension sheets may be used if desired. Pages 9 & 10, for details of individual bells, contain space for 5 bells on each page (the minimum number for change ringing). The second page may be filled up if there are 6-10 bells; photocopies may be taken for very large rings of more than 10 bells.

5. (1) The forms should be completed so far as relevant to the particular church.

(2) The part for **organs** applies to a pipe organ, not a digital electronic instrument. It contains questions about the organ, the **organ-case**, any **organ gallery**, and ancillary equipment such as the blower.

(3) The part for **bells** applies to bells hung for swinging or chiming, not to any bell(s) on display only or withdrawn from use (known as 'retired'.) It should also be used to record information about the **tower** and any **bell-frame**.

*Information on other bells or chiming systems, such as a calling bell or a carillon, may be added. If the church only has a single calling bell in a bellcote, to announce services, the forms may not be needed, but the bell should still be referred to in the QI's main report.*

(4) The part for **clocks** is for a **turret clock**, or any other clock which is built into the structure. The **mechanism** as well as the **dials** (sometimes called 'faces') should be inspected.

The forms are **not** intended for freestanding clocks, such as a long-case (so-called 'grandfather') clock or wall clock.

6. (1) The purpose of **Section One** forms is to inspect parts of the building which may otherwise be little visited, and to disclose any **threat** to the **main fabric**, **AND/OR** to a specialist item of value due to defects in the fabric, **AND MOST IMPORTANT** any threat to the **health and safety** of persons.

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\* Items in **ordinary type** refer to necessary information, which should be noted in the QI report and/or additional specialist report(s).

§ Items in **italics** (where it occurs thus, throughout this document) suggest additional information which may be helpful if available. If it is able to be seen, it is worthwhile noting it whilst making any visit, bearing in mind how seldom a tower or an organ chamber may be accessed.

**(2)** Organs, clocks and bells may have very substantial **replacement value**. A pipe organ or a bell-ring may each, by itself, be worth as much as a moderately sized church hall, as well as having historic interest and value. The value of a turret clock is usually greater in terms of its special interest as an item of historic engineering than in monetary terms. If a clock is not working or not keeping time, that will give out a negative signal to the surrounding neighbourhood. All three deserve special care and attention, in addition to that given to the church building as a whole.

**(3)** The organ, bells and clock in a church may all, potentially, give rise to substantial **building failure** and **safety hazards**, for example:-

- An organ gallery may be carrying excessive weight, occasionally leading to failure, due to ranks of pipes added, often during the 19th c;
- A bell-frame may be subject to infestation by insect or rot, which could spread to other building elements; or the tower may be moving and/or cracking as the bells are rung. A bell weighing several hundredweight could cause injury or even death, if not securely hung;
- The minute hand of a clock may be feet long; a rusty blade of some size and weight, if it fell into the street could injure a passer by. A pendulum or drive weight (up to ½ ton!), if it were to fall down the tower, would cause havoc to all in its path.

**(4)** **Section Two** forms are for further study of the specialist item itself, and/or the associated fabric surrounding it.

**7. A PCC or GCC** is therefore advised to ensure that:-

**(1)** Any **pipe organ** is inspected externally and internally at least once every **five years**. Such inspection should have regard to the condition of surrounding fabric (**Section One**) and any threat to the security and stability of the organ. The cost and disruption to services of any breakdown should also be borne in mind;

**(2)** Any **bells installation** is inspected in detail at least once every **ten years**; however the surrounding structure and fabric of the tower and the main bell-frame woodwork (**Section One**) need more frequent inspection, every **five years**. Routine inspection is needed every year: cleaning, joints and bolts tightened, any infestation dealt with, even though the forms need not be returned in this connection. Particular attention should be given to any threat to the security and stability of the bells and any clock;

**(3)** Any **turret clock** is inspected externally (the dial(s)) and internally (the mechanism) at least once in **five years**. Such inspection should have regard to the condition of the fabric (Section One) and any threat to the security and stability of the clock mechanism or dials.

8. If when completing Section One, any threat is seen, or cause for concern which needs additional specialist advice, then whether or not a specialist inspection is 'due', the appropriate specialist(s) should be commissioned to make an immediate inspection and complete the relevant **Section Two**. The purpose of Section 2 is to check essential functioning and condition, with any safety implications, in relation to the engineering equipment concerned.
9. Subject to item [10](#) below, **appropriate specialists** to complete Section Two pages may be:-
- (1) **The organ.** The Parish's regular organ tuner; the organist or Director of Music; a professional organs advisor;
- (2) **The bells.** The firm (if any) maintaining the bells; a firm of professional bell hangers; a professional bells advisor;
- (3) **The clock.** The firm (if any) maintaining the clock; a firm of professional clock repairers; a professional clocks advisor.
10. Details of individuals or firms for consideration by the PCC/GCC may be supplied by the DAC on request. It is of great importance to entrust this task to persons or firms with the requisite knowledge and experience. Considerable damage can be, and in the past has been, caused by tinkering by well-meaning but unskilled amateurs. If in doubt, consult the DAC.
11. (1) The forms are recommended as an example of good practice, but their use is not obligatory. They are intended to assist, not to become an additional burden.
- (2) The forms indicate the level of information appropriate in a QI report, and provide a convenient format in which this may be recorded.
- Items in **ordinary type** include necessary information, which should be noted here or in the QI report and/or additional specialist report(s);
  - *Items in **italics** (thus) are for additional helpful information if available. If it is able to be seen, it is worthwhile noting it whilst making any visit, bearing in mind how seldom a tower or an organ chamber may be accessed;*
  - *Any historical information such as the date of an organ-case or bell-frame, previous alterations to a clock, may be noted. It is helpful as well as good practice to acknowledge **sources** consulted.*
- (3) *It is intended that information should be **cumulative**. When returned to the DAC Secretary, what has been provided so far will be entered on the DAC database, and a printout may be requested for next time. Alternatively, a module from the DAC database may be supplied for use by the Inspector, if requested.*

- 12. (1)** *Some information may best be recorded by means of a simple **sketch**, and space is allowed for this on the Section One forms. These sketches are for the **organ-case**, the **bell-frame** and the **clock dial(s)**.*
- (2)** *These sketches should show the main elements and their lines; architectural detail is not needed, nor do they have to be measured or to scale. One organ may have 2 or even 3 cases, one clock may have several dials. Each should be shown, but it is better to stylise and simplify, rather than draw them in all their complexities.*
- (3)** *By way of guidance, the following should be shown -*
- For an organ, the main horizontal and vertical elements of the wooden case(s), and their relationship to the front pipes.*
  - The positions, shape, size and materials of clock dials, and whether they are transparent or illuminated.*
  - Diagrams of the bell-frame, in plan (with horizontal members as single or double lines) and elevation (one typical truss, lying parallel to the wheel of the tenor or another of the larger bells, not the return end - where a return end to one bell pit is in the same line as the main truss for another bell pit, the former need not be shown in elevation).*
- 13. (1)** Certain of the questions are about **access and safety**. Should the Inspector find any significant hazard or obstruction preventing access, he/she may decide to stop at that point, note in his/her report and advise the PCC/GCC what remedial action needs to be taken then, when this has been done, to return on a later date to complete the work.
- (2)** It is important to anticipate any such difficulty before the first visit (see note [18\(3\)](#) below). It will be necessary anyway to speak to the Parish before visiting, to arrange access and ladders for other parts of the building. It is therefore strongly advised that the state of access to any gallery, to the organ chamber and the tower be raised at the same time.
- (3)** It may be concluded that **advance works** are needed, and these should be put in hand after referring to the DAC Secretary and the **Archdeacon**, and gaining the Archdeacon's authority and/or any **faculty** permission (see note [19](#) below).
- (4)** Two likely causes of difficulty in relation to access are the absence or inadequacy of ladders, and fouling by birds. The former may be a safety hazard. The latter may be a health hazard due to poisonous fumes.
- (5)** A bell chamber should only be entered when any full-circle bells are in the 'down' position. Provision is made on the forms for inspection of the tower and frame by the bells specialist whilst some or all of the bells are rung. In this case, observation should

always be made from safe locations. Ear defenders are to be worn if the bells are not silenced during test ringing.

- (6) Do not enter any area if it would be unsafe to do so.
14. (1) Questions are also included about infestations, and about **asbestos**. Any visible asbestos **must** be noted, and also any element to which work is recommended and which may contain asbestos which could be disturbed by that work.
- (2) In addition, an organblower may contain asbestos which may not be visible but which, if it became friable and were blown around the building, would become a serious hazard. If there is a possibility of asbestos in the organ blower this **must** therefore be noted.
- (The DAC has been advised that Watkins & Watson organ blowers installed before about 1966 - well before the hazards due to asbestos were known - may have contained and might still contain asbestos; but other blowers might or might not do so, and the specialist should state his or her opinion.)
- (3) If there is any doubt whether or not asbestos may be present, a further inspection and report by an asbestos specialist **must** be recommended, and ordered by the PCC/GCC.
- (4) **Avoid touching, handling or disturbing any asbestos.**
15. Where possible, **tick boxes** are provided as alternative answers; mark a tick or cross as appropriate. They are arranged on the basis of good to bad, reading from left to right. **Additional fields** are provided for explanation or comment. Continue on a separate sheet if necessary.
16. At the foot of each Section of each form, space is given for **recommendations**. The Inspector should state whether a further specialist inspection is needed, in accordance with notes **6 - 8** above. Any **remedial work** already seen to be needed, and its **urgency**, should also be stated. **Priorities** may be given, health & safety hazards always being the first priority. Continue on a separate sheet if necessary.
17. (1) A degree of flexibility is appropriate, to allow for circumstances and arrangements in a particular parish or the individual Inspector's working practices, and for the reasons given in note **13** above. Therefore the Inspector in consultation with the Parish should decide which of them should distribute copies of Section One (see note **17(4)**, below), and how to arrange and follow up any specialist inspection and completion of Section Two.
- (2) The following is for guidance only, and subject to the previous note:-
- If, as may generally be the case, the forms are to be used in a QI, the **Inspecting Architect or Surveyor** should:-

- Complete Section One (**yellow**) of each part which is applicable, and attach a **copy** to the main body of the QI report;
- Supply the **original** to the Parish's representative, together with the uncompleted Section Two.

The **Parish's representative** should then:-

- Arrange for Section Two (**gold**) to be completed by (the) appropriate specialist(s);
- Issue the specialist(s) with the relevant completed Section One (which should still be attached to Section Two) before starting. This is always important, but especially so in the case of the bells, because it will be necessary for the specialist to look again at parts which have already been seen, if necessary adding to what has already been noted;
- Make the church's **inventory** available to be seen by the specialist(s) on their visit(s).

**(3)** One **copy** of each completed report (Sections One and/or Two) should always be sent on to **each** of the following:-

- The **Quinquennial Inspector**;
- The **Incumbent** (Rector or Vicar) or Priest-in-Charge;
- The **PCC Secretary**;
- The **Archdeacon**;
- The **DAC Secretary**, at:  
London Diocesan House, 36 Causton Street,  
London SW1P 4AU.

**(4)** The **Parish's representative** should **retain the original** yellow and gold sheets of all forms. This may be the Incumbent, a Churchwarden, Fabric Officer, PCC Secretary or other person designated by the PCC or GCC.

- 18. (1) The Diocesan Scheme for Inspection of Churches**, under which this guidance is given, makes provision for additional **fees** payable by the PCC/GCC to be negotiated for services additional to what is covered by the standard fee payable by the London Diocesan Fund.
- (2)** This may include a fee for any specialist report other than by the Quinquennial Inspector in person. Such fees are usually modest, and well worth it for the long term security of the fabric, repaying themselves many times over in repair bills avoided.
- (3)** The Inspector himself/herself may also charge an extra fee for any second visit which was necessary because of inadequate preparation by the Parish; this is therefore best avoided by

completing the necessary preparatory work in advance (see note [13\(2\)](#) above). The Inspector should make clear the need for any such work to be done.

**19.** It should be emphasised that the purpose of any inspection is just that, to look and report and make recommendations, not to carry out any work. Any work to be done will require a **faculty** application.

**20.** These inspections and forms are not intended as an exhaustive schedule for maintenance purposes. They are for use for periodic inspection only, to identify key risk and hazards. It is recommended that the PCC/GCC should enter into a contract with suitable firm(s) (see note [10](#) above) for regular (usually annual) maintenance of any organ, bells and clock.

**21.** For fuller information, the following publications are recommended:-

**(1) Organs**

"Sounds Good: A Guide to Church Organs", John Norman & Jim Berrow, Church House Publishing, 2002;

"Historic Organ Conservation: A Practical Introduction to Processes and Planning", Dominic Gwynn, Church House Publishing, 2001.

**(2) Bells**

"Towers and Bells: A Handbook", Central Council of Church Bellringers, Alan Frost (ed), 1995;

"The Conservation and Repair of Bells and Bellframes", Church House Publishing, 1993;

"Bellframes: A Practical Guide to Inspection and Recording", Chris Pickford, 1993.

**(3) Clocks**

"Turret Clocks: Guidelines for their Maintenance and Repair", Council for the Care of Churches, 1996;

"The Turret Clock Keeper's Handbook", Chris McKay, Antiquarian Horological Society, 1998.

**22. Comments and feedback** on the usefulness and clarity of these notes, and the forms, are welcome, and will be taken into consideration in any future amendment.

**Enquiries should be addressed to:**

DAC Secretary  
Diocese of London  
36 Causton Street  
London SW1P 4AU

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