Belfry Maintenance check list

SAFETY

· **Do not work alone in the belfry.**

· **Ensure that someone else knows you are in the belfry and how long you are likely to be there.**

· **Always leave a warning notice in the ringing room.**

· **Never work on bells which are up.**

· **Ensure all lights are working and you have sufficient light to work safely.**

· **Disable any clock chimes to save a loud surprise later.**

Record all actions taken and observations made in your Belfry Maintenance Book and inform your PCC of any issues.

AT LEAST EVERY TWO MONTHS

1. ROPES

Check for wear on all the ropes. Check at the fillet hole (where the rope passes through the wheel);
wherever the rope runs over pulleys (particularly the main pulley(s) in the belfry); where the rope
runs through any bosses or floors and the tail end where it hits the floor.
If the rope is worn down to half its original diameter, it is frayed or if the different strands are not
visible it needs changing or splicing. When a different rope needs fitting tie the top of the new rope
to the bottom of ther old one and pull it up holding the new rope at the correct height.

2. MAIN BELL BEARINGS, ONLY IF PLAIN (open style)

For plain bearings **ONLY**, lightly lubricate the main bearings. Preferably there should be a felt pad
on top and pressing down on the gudgeon to retain the oil. If you can get it, use castor oil. If not,
use gearbox oil. Do **NOT** use car engine oil – it has detergents in it which attract moisture and can
cause pitting on the steel gudgeons.
**NOTE. THE MORE COMMON ENCLOSED BALL BEARINGS DO NOT REQUIRE ANY LUBRICATION OR MAINTENANCE UNLESS THEY RUMBLE WHEN THE BELL IS RUNG IN
WHICH CASE A BELLHANGER WILL BE NEEDED TO REPLACE THE BEARINGS.**

3. PULLEYS

Check that ALL pulleys spin freely and are not deeply grooved or oval (if wooden). They should
make little or no noise when spun by hand. Noise implies that the bearings are worn.

4. CLAPPER ASSEMBLIES

Check that all the clapper assemblies are tight in the headstocks and the locking mechanism (split

pin or lock nut) is in place. Check that the clapper swings freely and is correctly aligned so that it
swings at exactly 90 degrees to the line of the bearings. Also check the amount of sidewise and
vertical movement. If there is more than one inch of sidewise movement the clappers may need rebushing
by a bell hanger. Older bells, particularly where they retain their canons and still have
wooden headstocks, may have cast-in crown staples, so the clappers are not easily adjustable.
Where the headstock has 'twiddlepins' (clapper adjusting bolts) screwed into the headstock one of
these should be loosened on the headstock to allow the clapper to be tightened and then 'pinched'
tight again afterwards. Make sure that you re-tighten the same pin that you loosened to start with,
otherwise you will make the bell odd-struck.
If the clapper has a greasing facility (grease cap or nipple) check to ensure there is grease at the
clapper pivot point. Motor cycle chain grease spray can ease clapper movement if no greasing
facility exists.

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5. STAYS AND SLIDERS

Check that none of these are cracked, damaged or have worm damage. If, when you set the bell, it
does not bounce but feels 'spongy' then the stay or slider may be damaged and need replacing.
Check that all stay bolts (and nuts) are in place and tight and the slider moves easily. If you have
Taylor's design Hastings style stays these need to be exactly the right length and positioned
correctly to ensure correct working. Any slight misalignment can cause the stay to bind and either
be difficult to set or be hard to pull off when starting to ring.

6. WHEELS

Check that the wheel is tight on the headstock and that all bolts and nuts are in place and tight. If
any of the outside rim (the shrouding) is loose or missing then this needs repairing / replacing.
Check for signs of rot or woodworm / beetle attack and seek further advice if any is found.

7. TOWER ROOF AND LOUVRES

Check that no water is coming in through the tower roof or belfry openings and that the netting on
the openings is stopping all birds from getting into the belfry.
If belfry openings are allowing water to enter then some weather protection needs to be fitted.

EVERY SIX MONTHS

8. ALL OTHER NUTS AND BOLTS

Check that all the nuts and bolts on the headstock, bearing cases, wheel and clock hammers are all
in place and tight. Check wooden headstocks for signs of splitting, rot or woodworm / beetle attack
and seek further advice if any is found.

EVERY TWELVE MONTHS

9. BELL FRAME

Check all nuts and bolts are in place and tight, particularly tie bolts in wooden frames which pull the

top and bottom of the frame together. This is best done after a period of warm, dry weather, when

the wood is less likely to be swollen. Remove any rust from metalwork, including the metal frame

and repaint where necessary. If there is a significant amount of rot and / or beetle / worm in a

wooden frame or any of the wooden part of the installation then further advice should be taken.

10. DIRT AND RUBBISH

Clean out the belfry and all intermediate rooms and the ringing room to ensure that all build up of

dirt, rubbish and unwanted clutter is removed because it is a fire hazard and may also hide another

problem.

A very quick summary of bell maintenance is:

If it should move, make sure it can move freely (bearings, pulleys, clappers, sliders)

If it is not meant to move, make sure it does not move (frame, clapper crownstaple, bell

bolts, wheel bolts)

If you are unsure of what to do contact some one who knows or seek advice from one of your

Association Belfry Advisors listed in the front of Association Report.

Practical help on Tower Maintenance and bell related matters can be found on the Central Council

website at CCCBR publications list. Their publication "Schedule of Regular Maintenance" contains

plenty of diagrams and information. More detailed explanations can be found in the 400-page

"Tower Handbook". All these and many others are available by post through the CCCBR