

Derby Diocesan Association of Church Bellringers Consultant's Report	Report DDACB 08/05
Church of St Matthew at Hayfield – Inspection of Bells	Issue Date 17/06/05

1.0 Introduction

Following the last inspection by John McCartney in 1997, quotations for remedial work on the bell installation have been received from Fred Pembleton and Eayre and Smith. This work centred on the pulleys and the clappers. At the request of Reg Radford, Robin Lyon and Mike Banks (Bell Consultants to the Derby Diocesan Association of Church Bellringers) carried out a quick inspection on 17 June 2005 to give an up-to-date independent assessment of the extent of remedial work required in these areas.

2.0 Pulleys

All pulley wheels are nearing the end of their serviceable lives, many are sticking or rub on their sidewalls and at least three are cracking. This results in heavy grooving of the wheels, accelerated rope wear and poor “go” for the bells. It is recommended that all pulley assemblies be repaired or replaced.

3.0 Clappers.

All clappers are of wrought iron, are fitted with independent crown staples and their strike faces show considerable flattening. It is the opinion of the author that flattening in this way is not detrimental to the bell installation. The exposed thread on the independent crown staple of bell 7 is severely rusted away.

Clappers 3,4,5,6,7 and 8 are loose in their headstocks and require tightening after first fitting a new leather washer under the crown of the bell.

(Note, when refitting a clapper, one person should sit under the bell and hold the clapper out against the strike point on the bell rim while a second person tightens the holding nut on top of the headstock. Holding the clapper in this way from below allows the torque applied by the spanner to be resisted so that the clapper remains in the correct orientation to the axis of swing of the bell. A new split pin should always be used to lock the holding castellated nut).

All pivots have grease caps to facilitate lubrication but the cap on the treble cannot be removed due to lack of space. Wear on the pivots is moderate but appears more serious due to the looseness of the clappers in their headstocks as described above. They will remain serviceable for a few more years.

4.0 Bell Holding Bolts

There is severe corrosion in one of the split washers which locks a holding bolt for bell 7. Half of the washer has fallen out leaving a question mark over the security of the bolt. It is probable that the other three split washers are in a similar state and so urgent attention should be paid to replacing all four washers. Note, ensure this work is done with the clapper bolted in place, removing and replacing each bell holding bolt and washer in turn.

5.0 Wheels

The position of the garter hole in the rim of wheel 3 is incorrect. It must be moved to a position where the sally height is the same with the bell up or down.

6.0 Recommendations

6.1 Things requiring immediate attention.

- Replace the split locking washers on the holding bolts of bell 7.
- Remove clappers 3,4,5,6,7 and 8, fit new leather washers and refit tightly in their headstocks (as per section 3.0) using new split pins in the castellated nuts. Check for the extent of corrosion on the thread of clapper 7 – it might need repair which would place it in section 6.2.

6.2 Things requiring attention by a professional bell hanger when funding permits.

- Replace or refurbish all pulleys. It has been suggested that pulley 3 could be lowered and there might be a slight advantage to the run of the rope. This may be true but is not essential.
- Move the position of the garter hole on the wheel of bell 3 (this could be done as a DIY project).
- Rebush and refurbish some, or all, clappers. Eayre and Smith have identified pivot wear in clappers 1,5 and 7 as more critical than the rest and so these could be given priority to keep costs down if cost is an issue.

Of course a professional bell hanger could carry out all of the work listed in both sections 6.1 and 6.2.

Advice given in good faith – no liability accepted.

Mike Banks

Bell Consultant to the Derby Diocesan Association of Church Bellringers.