

## St. Peter's, Caversham Bell Overhaul, 2019

An inspection of the bells in 2017 revealed that although the installation was in generally good order there were signs of fair wear and tear arising from the 45 years' use since the present installation in 1973. A full overhaul was therefore undertaken to remedy this, and to take the opportunity to correct certain operational issues.

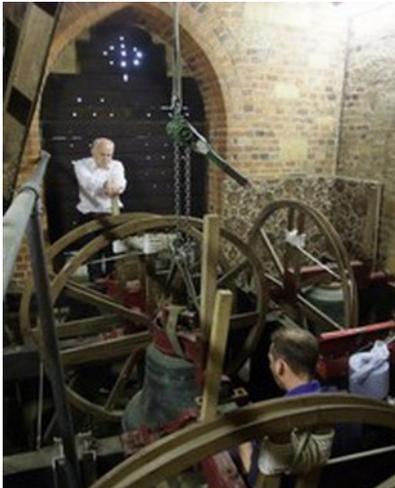
The overhaul was performed between 24<sup>th</sup> June and 12<sup>th</sup> July by Whites of Appleton, their specialist bellhanger, James Haseldine, being assisted by members of our home band, Doug Beaumont, Jane Havelock and David Sumner.

The clapper pivots were worn, and the clappers were removed and taken to Whites' workshop to be rebushed. The staple (the fixed spigot which attaches the clapper to the bell) of the no.3 clapper was found to be cracked, so a replacement staple was provided. The existing tenor clapper was an oversize replacement of ductile iron following a failure not long after the original installation, so has been replaced with a correctly sized wrought iron clapper to make the tone better in keeping with the rest of the peal.



The clappers removed; 1 to 8, left to right

The main bearings were opened for inspection, and regreased as necessary. The tenor was lifted from its mounting on one side. The ball-race was found to have two grooves running round the inside on each side, so not in good condition, and was replaced. The 2nd and 5th were lifted from their mountings and inspected. The bearings were found to be in good order. The cap was removed from the bearings on one side of the 6th and 7th and the bells were rung up. There was no undue vibration or sound from the bearings as the bells were rung. After inspection, the conclusion was that the bearings of these bells were in good condition.



Bell no. 5 lifted to inspect bearing



Bearing of tenor opened for inspection



Tenor bell lifted to remove old bearing



Tenor bell with old bearing removed

The bearings of nos. 1, 3 and 4 were consequently judged satisfactory, and were not inspected further.



The pulleys of bells nos. 3, 5 and 6 were worn, and have been replaced with new ones. The new pulleys are of cast nylon (black) instead of wood, as shown in the picture of bell no.3

The rebushed clappers were reinstalled, using tapered washers where necessary to even the striking, particularly of the oddstruck no. 3., to within a maximum acceptable difference between hand and back stroke of 20 milliseconds.



The rebushed clappers, left to right, tenor to treble. Clapper for no.3, with new staple, is 3<sup>rd</sup> from right, with washer.

Taylor's of Loughborough, the original installers, painted their metalwork red; Whites use blue.



Doug with new washer; James tightening staple nut on no.6

To attenuate the sound from the no.7 bell reaching the ringing chamber, an acoustic baffle has been installed.

