

St Thomas' Bells

The eight bells in St Thomas' tower, which were cast in 1936, bear the maker's inscription in raised lettering around the top of each bell:

John Taylor & Co Founders Loughborough Leicestershire

The keynote bell, number 8 is tuned to E and has the following dedication:

**In Memory of
Stephen Melland 1813 - 1889
of The Longlands Brampton
and in memory of
Godfrey Melland May 1857 - 1915
of Orchard Cottage Brampton
By whom and whose widow
Frances Elizabeth Smith May
The peal of bells in this tower
was given
To The Glory of God
1936**

**Hubert John Sillitoe, Hon: C.F., Rector
John Austin}
Henry Hubbuck} Churchwardens
Revelation XXII, 17.**

The number 7 bell, tuned to F# has the following dedication:

**To the Glory of God
And in Memory of
The Reverend William Melland
Born at Brampton Manor 1817
Died 1900**

The bells are hung 'dead' (that is permanently fixed) to a fabricated steel frame in three different levels. They are variously described as either Chimes or Carillons. [The John Taylor Bell Founders website](#) describes chimes as consisting of up to and including 22 bells and a carillon as being at least 23 bells up to as many as 77.

The St Thomas' bells are rung from a manual lever keyboard mounted on an intermediate floor between the bell floor and the clock floor. The keyboard is connected by a series of vertical wire rods to a rack of horizontal layshafts in the bell chamber which, through a series of levers, pull the internally mounted clappers via short wire rod connections.

Two of the bells (nos: 8 and 7) have a second clapper which can be operated from the rope pulls just inside the west porch. Only one of these is operational at the time of writing (although the no. 7 could easily be reconnected)

Bell number 6 (G#) is fitted with an external hammer which is operated by the clock to strike on the hour. (a recording of the clock striking 10 am on Christmas Day is available on the website)

There is also an auxiliary rope which passes from the George room, through the ceiling, into the clock case, which can allow the hour bell to be rung at any other time.

The layout of the bells when viewed from above, their numbering, key, diameter and overall height in millimetres is shown on the diagram below.

The bells are cast from bellmetal - a bronze alloy consisting of 77% copper and 23% tin. This metal is heated to 1200 degrees centigrade before being poured into a mould made from mixed loam (a mixture of black and red sand), chopped hay, horse manure and water. The inscriptions appearing on the outside of the bell are impressed into the outer mould (the case) and so appear as raised letters on the finished product. The mould forming the inner shape of the bell is called the core. Both case and core, once formed, are dried in an oven at around 150 degrees centigrade before casting can commence.

After casting, the bells are tuned on a vertical lathe. They are struck with special mallets in order to vibrate the metal in those areas which produce the main harmonic frequencies. After assessment by the Bell Master, the Bell Tuner removes small chips of metal uniformly from the inside of the bell until the vibrations of each of the main harmonics reach the required frequency.

More technical detail of the making of bells (from which the above is abridged) can be found on the [Taylors Eayre and Smith website](#).

There is a significant weight of bellmetal in the St Thomas' tower; an approximation to the individual weights is as follows:

No	Strike Note	Weight Kg	No	Strike Note	Weight Kg
1	E	170	5	A	450
2	D#	190	6	G#	530
3	C#	250	7	F#	740
4	B	340	8	E	1030

So next time you hear a peal from the tower, bear in mind that you are listening to a total of 3,700 kilogrammes of vibrating bellmetal.

Phil Riley 30/12/2007

Plan of Brampton St Thomas' Bells (not to scale)

