St Margaret, Crick, Northamptonshire

1819 organ by Thomas Elliot

2008-9 restoration by Martin Goetze and Dominic Gwynn

Final Progress Report, October 2009

The reed pipes

Having restored the surviving reeds, it was necessary to make all the parts that were missing. This included the four biggest pipes, and most of the trebles of the Great Trumpet. Three original Bassoon resonators needed companions, but nearly all the Cremona and Hautboy are original. New blocks were cast, and new shallots made to fit in with the originals.

Cremona before and after restoration

Hautboy before restoration (above) and during restoration (below)

Clockwise, from top left:

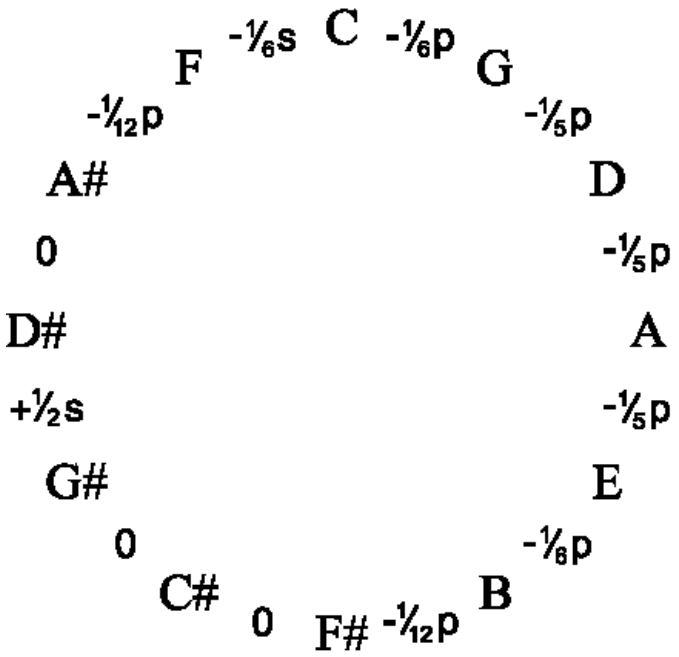
Casting lead blocks
Forming a brass shallot
Sanding the angle on the shallot end
Curving a reed tongue
Fitting the Bassoon tongues

Voicing and tuning

Establishing an appropriate pitch and temperament was not straightforward. Most of the pipes had been cut shorter and tin-plated steel slides fitted. The front pipes provided some information, as did the open wooden pipes. The restored reed pipes could only be voiced and tuned within a certain pitch margin. It was not possible to lower the pitch of the stopped wooden pipes beyond a certain point, and the longest old pipes of the Great Open Diapason had been left uncut, providing further evidence.
Once the pipes were all put into the organ and the voicing checked, a final pitch of a = 437.1Hz at 16°C was arrived at.

The organ was tuned to equal temperament before restoration, and this was probably the temperament at the end of the nineteenth century. It is very unlikely to have been the temperament used in 1819, 1841 or even1853. The J.C. Bishop organ at St James, Bermondsey, made 10 years after Crick, was considered to be at the forefront of organ design, with James Turle as the first organist before he moved to Westminster Abbey. Pipes that appeared to have been left with original lengths were used to establish a temperament that was very close to one that Bishop described, discovered subsequently. It is close to fifth comma meantone, but with the 'wolf' between d# and g# made a little less harsh by adjusting the neighbouring fifths.

This 'Bermondsey' temperament has been applied to the Crick organ.



	Cents
C	0
C#	86
D	195
D#	300
E	390
F	502
F#	586
G	698
G#	788
A	893
A#	1002
B	1088

Voicing was checked at the workshop as far as possible, and then again in the church. The method employed was to leave all the voicing details as found, only altering where a particular pipe was clearly unlike its neighbours. In these cases, toeholes, flues and upper lips were checked. The most common reason for change was deformation of the pipe toes, so adjustment of the hole sizes was expected and necessary.

Casework

The royal coat of arms appears on top of the organ in an old photograph. A new softwood roof has been attached to the top of the central tower, and it was possible to make a new plinth for the arms to sit on. The roof also reduces the amount of dust that finds its way onto the pipework.

There has been so covering for the Choir organ, and it was thought desirable to have one, in particular for the Great Trumpet and the Choir Bassoon/Cremona. The Great soundboard extends further back than the original casework, and this results in the Great Trumpet sited behind the rear of the main case parts. The 1978 work included a sloping hardboard cover for the Trumpet pipes. The new roof between the centre tower and the Swell box affords some protection for the reeds of Great and Choir.

Old frames that were behind the front pipes were found to be covered in a faded red cloth dating from the late 20th century. At present these have not been put back, partly because the new roof reduces the amount of light inside the organ.

Swell

The Swell was extended in 1841 or 1853 by sawing soundboard, box and roller board in half and adding central sections. It became evident that the Swell front itself was the original, and just screwed to front boards that made up the width. The slightly narrow opening that results makes tuning the top notes rather difficult.

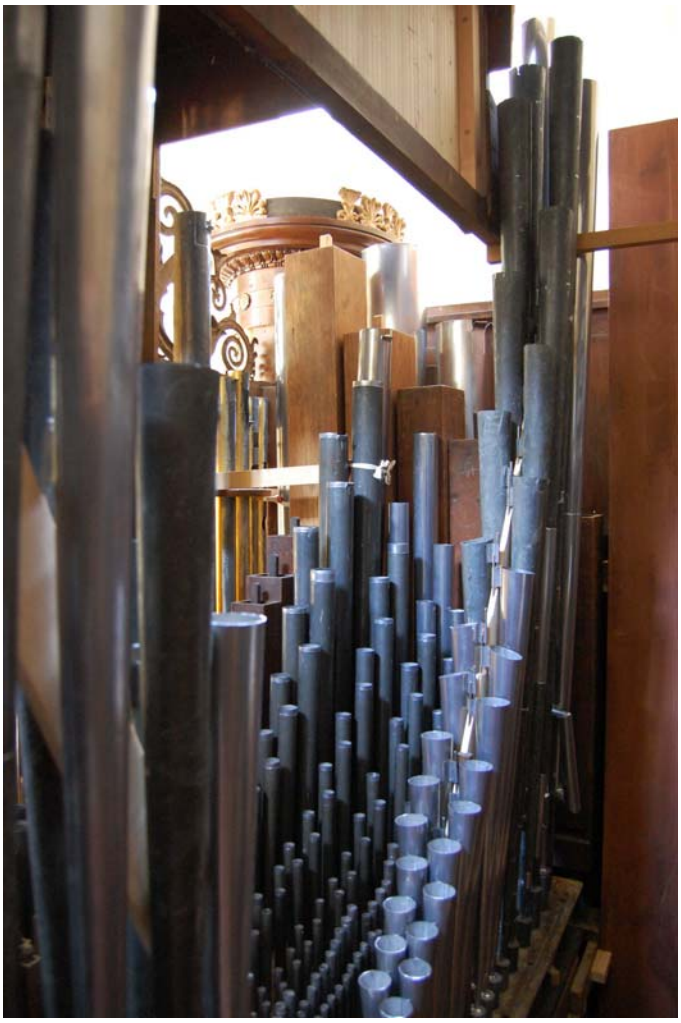
Installation

Installation at the church began on 16th June, the parts having been packed and transported by Ballards Removals. After filling most of the church, parts were taken up to the gallery for assembly. The gallery floor level was very uneven, and it was necessary to keep to the existing heights when setting out the floor frame.
With the floor frame in position, the bellows and then the building frame could be set up, followed by wind trunks and soundboards, then the Swell box and upper case.

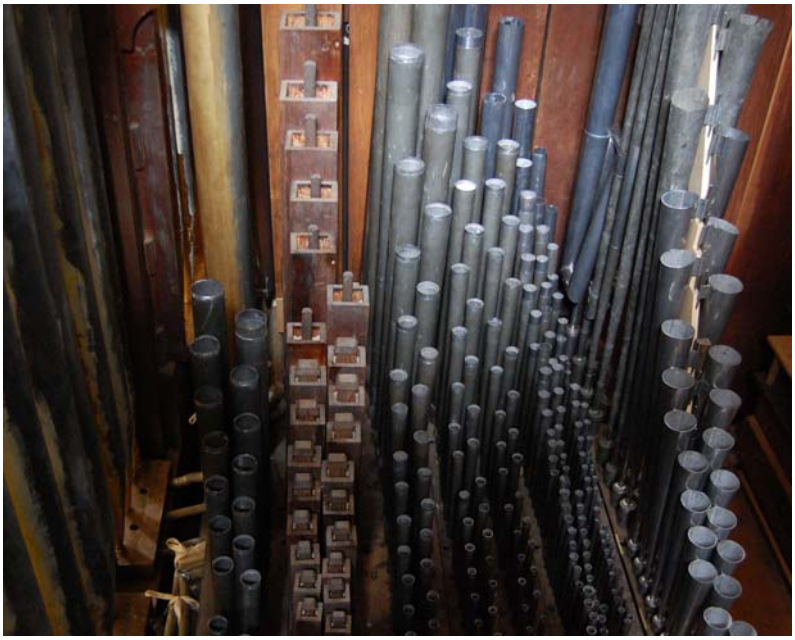
The horizontal manual key action had been set up in the workshop as a single unit with keyboards, couplers and squares. This needed partial dismantling in order to get through the church door, but after careful preparation was fitted in place. The Great to Pedal stickers had been made to push up the underside of the Great keys rather close to the pivot rail, mechanically a poor position. New stickers were made, together with registers, which act on the rear ends of the keys.

Below the Great stops on the right hand jamb are two holes for stops which have evidently never been used. They have been retained as found.
At the top of the bass jamb is a hole that was used for the 1ft Piccolo, and this too has been left.
The 1853 Pedal department had 17 notes (GG – c). By 1978 the compass was 27 notes (C – d^1) with a radiating and concave pedalboard. By making a new pedalboard in 19th century style, with concave but parallel keys, it was possible to fit a standard 30 notes in (C – f^1). The four lower notes that have been restored on the manuals (GG – BB) would not have been possible to accommodate as part of the normal pedalboard, so for extra toe pedals have been fitted just above the lower pedal keys.
The Swell pedal is of the 'trigger' style, which it has been for a long time.

The four largest metal pipes from the Open Diapason have been missing for a long time, so new ones were made by Stinkens, of Amsterdam, following the scaling and manufacturing details of the existing pipes. Many of the old pipes show signs of creeping metal, so the new ones have copper lining in the feet.



Left: Trumpet pipes behind the old case back
Above: Choir pipes and Swell access ladder
Below: Raised passage board for action access
Below left: Great pipework



Martin Goetze, 5th November 2009