



NICHOLSON & Co.

## ST LAWRENCE'S CHURCH YORK

### TONAL RESTORATION

The organ that for most of its life lived in the church of St Michael-le-Belfrey in York was built by the York firm of William Denman & Son in 1885. This was the firm's *magnum opus*, but sadly this fine organ fell silent around the year 2000.

The fine Victorian church of St. Lawrence just on the outskirts of the city's walls has been without an organ for some time, and indeed the future of the church was uncertain a few years ago. Through the sheer determination and stewardship of the churchwardens and congregation, the church is now flourishing and much restoration work has been undertaken on the building. The growing congregation enjoys its superb choir, drawn mainly from students and directed by Jonty Ward, also one of the Songmen from the Minster.

We were invited to view the Denman organ at St. Michael-le-Belfrey, with the idea that it was to be transplanted into St. Lawrence's. There was a scheme in mind to rebuild the organ, using much of the pipework, but also making it considerably larger, thus moving away from the integrity and character of the organ that had already been compromised by changes in the 1970s. We felt that perhaps a more conservative approach was required and that it might well be possible to return the organ to its former glory, and this is what we suggested. Happily, this has been the outcome.

During our inspection there were lots of questions which we were not able to answer because the organ could not be played. Did the action work well? Had it **ever** worked well? What did it sound like, and what were we going to do to return the sound of the organ, given the changes that had happened to it over the course of its life?

We knew the original stoplist so had something to base our subsequent decisions on. That said, we still didn't have the organ in the workshop and were unable to assess the pipework or soundboards to the ideal level of detail.

To ensure that the new replacement stops were an ideal match, we wanted to replicate surviving examples elsewhere. The stops we had to find were: i) and ii) a Gamba 8' and Small Open Diapason 8' for the Great, both removed in the 1970s in favour of a Sharp Mixture and a Tierce  $1\frac{3}{5}$ '; iii) and iv) a Viola 4' and Flute 4', both for the Swell, replacing a 1970s Octave 4' and Super Octave 2' respectively; and v) and iv) on the Choir a Pierced Gamba 8' and a Dolce 8' to replace a Block Flute 2' and Larigot  $1\frac{1}{3}$ ' respectively.

We were fortunate that several local organs had similar stops by Denman, allowing us take all the necessary scales and voicing details. At The Church of St John the Baptist, Healaugh, we copied the Great Gamba 8' and the Swell Flute 4'. At the St Saviourgate Masonic Lodge in York we copied the Dolce 8', while at Sowerby Methodist Church we



found a Swell 4' Viola to copy. We are most grateful to those people who kindly facilitated these visits and allowed us to hear Denman's work. We were unable to find a Pierced Gamba: it seems Denman only made one, and that had been for St. Michael-le-Belfrey, which no longer existed!

There were several decisions that also needed to be made. We couldn't take wind pressures, or a pitch, and we didn't know how the organ balanced, either within each department, or between departments, and we had only the slimmest records telling us what work had been done by previous builders. We were keenly aware that there was an expectation that the restored organ would be able to accompany the excellent choir, but also it had to be big enough to fill the considerably larger space of St Lawrence's with sound and adequately support the congregation.

After some experimental work with some of the pipework, it became clear that wind pressures of 90mm for the manual pipework and 100mm for the Pedal would be appropriate for the restored organ. When listening to the untouched Healaugh instrument we were struck with how vibrant the voicing style of William Denman is, how he approached the tonal massing of his chorus work, and also the quality of the tonal finishing. In short, we were pleasantly surprised and impressed, whetting our enthusiasm for the prospect of restoring the St Michael-le-Belfrey organ in a new home.

If I take each department in turn we can see how each decision was made, and how we have arrived at how the organ sounds today.

### *Great Organ*

The Great division had been mutilated by the removal of the Small Open Diapason 8' and Gamba 8', the recasting of the Mixture and the revoicing of the Trumpet with the addition of harmonic trebles.

Initially we had intended to make a new Small Open Diapason, but we discovered that this former stop had actually been moved to the Swell to become an Octave 4', being loudened considerably in the process. This was easy to reverse and a beautiful stop has revealed itself. Some of the case pipes, were marked 'Sm Open' and so we were able to reunite these. There was, however, a conundrum with the basses.

There was no separate bass for the Large Open Diapason, but the upperboards had evidence that there had been conveyancing, and therefore it might be assumed that those pipes did once exist. However, there was absolutely no room within the organ for a large-scale 8' bass! The mild bass for the Small Open Diapason would not be able to do duty for both stops. There was an off-note block behind the front pipes which had some of the tenor octave pipes from the Double Dulciana 16', and some blanked-off spare holes. There were no markings, however, and neither were there enough holes for the pipes we were missing! What to do? There was room for at least some of the bass octave of the Large Open Diapason in this space, and so we have been able to give this stop an independent bass down to FF, then only the lowest 5 notes are 'borrowed' from



the Small Open Diapason. This has worked very well, with the 'fullness' of the Large Open carried well down into the bottom octave.

The Gamba 8' threw up another set of problems. The basses for this stop, along with the Double Dulciana 16' and the Small Open Diapason 8', were also on the front.....except bottom EE and FF were not, and neither, seemingly, had they ever existed! It became clear to us as we progressed further with the restoration of the organ, that Denman had simply left out a handful of bass pipes that wouldn't fit. There was just about enough space behind the new Large Open Diapason bass block, for a bottom EE and FF for the Gamba.

When we looked at the scale of the case pipes it was clear that the scales of the Gamba we had taken at Healaugh were not going to be a suitable match, and therefore a decision was taken to make a new scale for the Gamba based on the scales of the casepipes. We made the pipes from spotted metal to follow on from the bass, including the bottom EE and FF, and this has turned out to be very satisfactory.

It was impossible to work out exactly how Denman had intended his chorus to be set up as there had been so many changes. Having listened to the organ in Healaugh, which has not had any work or changes other than a cleaning, I was able to make some educated guesses, and what we hear now are my own decisions, taking into account the size and acoustics of St. Lawrence's, but without altering, in any way, the voicing style of Denman. There was some question in my mind whether the nicking had been previously altered, it is fairly agricultural and not entirely uniform, but the cut-ups seem to be original. The voicing style is 'slow' i.e. the languid is set high and the upper lip has an 'over-bite'. There is some energy in the sound which is attractive and musical.

The chorus is bright and vibrant and full of unforced energy. The Mixture had been recast and there was little evidence to tell us what it was originally. We were fortunate to have had personal recollection from a previous organist at St Michael-le-Belfrey, who had been familiar with the instrument prior to its 1970s changes. He recalled how brassy the reeds were and also that the Great Mixture had contained a 17th rank. This suddenly made the clues on the upperboards and rackboards make sense, and we were able to recast the Great Mixture with a 17th rank. The upperboard showed that this stop had a break in the tenor octave as well as at middle c. The break in the treble was no longer obvious and so we took the 17th rank to A46 and it breaks back to 8-12-15 at A#47. It fulfils the role as a solo stop as well as a chorus mixture and we are particularly pleased to have been able to return another original sound to the tonal palette.

The Stopped Diapason 8' also gave us some decisions to make. The Gt Stopped Diapason 8', the Swell Stopped Diapason 8' and the Choir Gedackt 8' are identical in scaling and voicing treatment. They are of heavy spotted metal from middle C, with pierced stoppers, and are clearly 'trade' stops. When we began looking at the original leather on the stoppers which had not been changed, it appeared that Denman had kept the piercing in the stoppers closed. Most of them had had new leather, however, with the piercings in the stoppers uncovered. This gave quite a hard and bony character to the



sound, uncondusive to a good blend. We have been guided by the older material in keeping all the piercings covered; these are now all lovely stops with subtle differences. The four 8' stops on the Great blend beautifully, the smaller ones being a blend of rich foundational tone. The Large Open Diapason is an heroic sound, without being overloud or forced. Throughout the chorus there is a marked crescendo into the treble which we have maintained, which helps to carry the organ's sound into the building.

The Flute Harmonique 4' is a telling stop, with plenty of ascendancy in volume in the treble. The Double Dulciana 16' is actually a diapason and the pipes (also trade pipes) are marked as such. This stop gives a gentle gravitas to the chorus with or without the Large Open. The Trumpet has had its 1920s harmonic trebles removed and replaced following the original scale. This has returned a bright tonality which allows the flues to shine in the treble without the reeds dominating, a more musical sound. For this same reason, we have stopped using harmonic trebles in all our new instruments, Tubas excepted!

### *Swell Organ*

The Swell division now has its original tonality restored. The string stops were poor, and it seems that Denman was not comfortable when voicing these. The Salicional 8' has the widest mouth we have ever seen on a string (or in fact, ever). Cut-ups were sporadic: some were exceptionally low, seven had beards, and others were much higher. In the end we lowered the cut-ups of those pipes that had been cut up too far, removed the seven beards and then revoiced the stop as well as it would allow. The Vox Angelica 8' - a Dulciana tonally - had fared rather better, but still needed much work to get it to speak properly and tune with the Salicional. They have come out as well as could be expected and are gentle and ethereal.

The Open Diapason 8' had been loudened beyond the point where it spoke well and so this stop has been softened back to blend with the Stopped Diapason and the Salicional. There is now a lovely foundation for the rest of the division, perfect for accompanying. The new Viola 4' is a very useful stop. The sound is edgy and harmonically driven, without being loud. It makes up, in part, for there being no independent 2' stop. The new Flute 4' is characterful with a definite transient to the start of its speech, exactly as we found at Healaugh. It blends well with the 8' stops and offers an enchanting solo colour when drawn with the 16' Bourdon and played an octave higher.

The Mixture is quite highly-pitched in the bass at 19-22-26. This seemed odd to me, particularly with no independent 2' stop between this and the Viola 4'. It had been opened up and made to be louder than it would have been, and certainly did not have any blending quality to it, as one would expect in an organ of that date. I have softened the bottom octave so that it adds clarity without drawing too much attention to itself. The 2' rank when it comes in at Tenor C has been set as the loudest of the three ranks, and this carries on throughout the compass, keeping the upper ranks more subdued. This has worked well and the Mixture adds colour and brightness without dominating the ensemble.



The reeds were altered at some point in their life: the shallots had been opened up very poorly. In the end I took the decision to take the longest opening and work from that point, ensuring the openings were all uniform. The Horn 8' and Clarion 4' are bright and brassy, making for an exciting full swell. The Oboe 8' appeared to be original other than having been loudened; only cleaning, softening and regulation were necessary.

It is worth mentioning the reeds as a separate item. The reeds, with the exception of the Swell Oboe, are continental. The resonators from C13 are tin, with markings that are consistent with our view that they were bought in from abroad. There is no documentary evidence to confirm this suspicion. The Swell Horn (actually marked Trumpet) and Clarion, and the Great Trumpet, all had a new zinc bottom C1 added when the pitch of the organ was altered by Abbott & Smith in the 1920s. As mentioned earlier, we have removed the harmonic trebles from all these stops, which were added at that time. The Pedal Trombone 16' has a half-length bass bottom octave due to limited height clearance in St Michael-le-Belfrey. Abbott & Smith, having inserted a new bottom C1 in zinc, and moved this rank up by one note left us with an unsatisfactory arrangement. C13 had the old half-length B12 resonator, which resulted in a bumpy change in sound and looked very odd. We made the decision to make a new full-length C13 resonator, so now only the bottom 12 notes have half-length resonators rather than the bottom 13. The match between the full-length and half-length is much better managed, and when the stop is drawn with the tutti (it is a rather loud stop and a bit too much for a 'Bach' pedal reed) it is perfectly balanced and almost impossible to tell you are listening to a partly half-length stop.

### *Choir Organ*

The Choir organ had received the all-too-common neoclassical 'facelift' of the addition of a Block Flute 2' and Larigot 1<sup>1</sup>/<sub>3</sub>', demonstrating a misunderstanding of the purpose of such a division. We have made a new Dolce 8' and Pierced Gamba 8' to replace these irrelevancies. The Dolce was easy as we were able to copy that from the example at the York St Saviourgate Masonic Lodge, but as mentioned earlier there was no Pierced Gamba to copy. We had the scales of the Gamba from Healaugh and as we hadn't ended up using those details and scales for the Great Gamba (again, see earlier in this paper) we decided to use this scale for our Pierced Gamba. It is made from plain pipe metal with long slots, and has turned out a lovely stop with plenty of harmonic development. The new Dolce has a gentle diapason tonality, perfectly suited to accompany the Swell Oboe, for example, but also blends beautifully with the Gedackt, an ideal sound for accompanying work. The Gemshorn 4' is bright and the Flute 4' (with pierced stoppers) is charming. The Clarinet is of the Cremona tonality, but acts as well in the chorus as it does as a solo colour. This little division of just six stops, positioned unenclosed at the front and top of the case, is a jewel that shows what can be done with a few well chosen and voiced ranks.



### *Pedal Organ*

There are not many organs of 34 stops that have no less than 6 wholly independent pedal stops. All have weight and character. The Open Diapason 16' is a generously scaled open wood and underpins the whole instrument. The Contra Gamba 16' is gentle but telling, and uses all the case pipes in the west façade. It seems that Denman meant all of this stop to be on the case front, but there was insufficient height for them in St. Michael-le-Belfrey; he therefore placed the bottom CCC and CCC# on an action block on the floor inside the organ just to the left of the console. Upon inspecting the Contra Gamba chest we discovered that these 2 notes had been blocked off, and seemingly never spoke. We have reversed this in our restoration and these pipes now speak! The Sub Bass 16' and Flute 8' were in very poor condition, as was the Open Diapason: hardly any of them spoke when we got them back to the workshop. They have all had their caps removed and the blocks planed and the windways re-set. Most of them had to be repaired in one way or other, and the stoppers re-leathered where required. They all now speak as intended and with the 8' Violoncello, this department is thoroughly comprehensive. The Trombone has been mentioned above.

### *Conclusion*

This organ continued to impress us as we have worked through the pipes in the building to ensure the balances and the regulation are correct. As we approached the end of the tonal finishing, an organ of great integrity, of musical excellence and character revealed itself. It is one of those instruments which, when you sit down to play it, offers so much more than the specification might otherwise suggest, and every stop has something interesting to say. It has been an enormous privilege to have returned this dormant voice back to life and to have played our part in the stewardship of the future musical life of St Lawrence's and the city of York.

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