ST ANDREW'S CHURCH

BIRCHILLS
WALSALL

ORGAN
RESTORATION REPORT

OCTOBER 2026



NICHOLSON & CO. LTD
MALVERN



CONTENTS

Foreword 2
History of the organ 3
Nicholson & Lord 4
Condition prior to restoration 6
Description of restoration 9
Programme 9
Key action 13
Drawstop and combination action 16
Soundboards and chests 17
Wind system 22
Pipework 26
Console 28
Expression box and mechanism 32
Building frame and casework 32
Techniques and reference material 33

FOREWORD

There is something special about working on Nicholson & Lord instruments. Aside from the fact that they are invariably of superior quality – it is our view that the firm is unjustly overlooked – one is conscious of the family link, Nicholson & Co. and Nicholson & Lord having been founded by two brothers.

There is something even more rewarding in restoring a Nicholson & Lord organ that has spent its entire 137-year life within less than a mile of the Walsall workshop where it was built.

We would like to pay tribute to the support and enthusiasm of the congregation, represented in particular by the indefatigable Angela Degg, for rising to the challenge of this major work.

Andrew Caskie
Managing Director

Project leader	Andrew Caskie
Other colleagues who worked on the project	Dan Amphlett, James Atherton, Ethan Bennett, Tim Bennett, Nathan Caskie, Edward Coleman, Alistair Cresswell, Gavin Davidge, Ian Downes, Dan Ferriday, Daniel Flew, Luke Gallichan, Wesley Gibbard, Michael Latham, Kyle Murphy, Hector Payne, George Rawlinson, Mark Rawlinson and Colin Willis.

With thanks for input and support from Nigel Allcoat, Roger Norris, Michelle Pepper, John Rowntree, and colleagues in F. Booth & Son (Voicers) Ltd; Crawford & Company Adjusters Ltd; Chris M Holford Pipe Organ Builders Ltd; Midland Conservation Ltd; and whoever makes the deliciously restorative apple tea at the Salt 'n' Pepper Turkish restaurant in Walsall.

© 2026 Nicholson & Co. Ltd

HISTORY OF THE ORGAN



St Andrew's Church was consecrated on St Andrew's Day in 1887[1], and replaced an overcrowded Mission Room (run by St Peter's Church) in the growing Birchills area, home to miners and metalworkers. The dedication of the church's organ followed exactly two years later[2]. The instrument had been built by Nicholson & Lord of Walsall. Interestingly, the specification listed in the local press[3] showed that six stops (Pedal: Open Diapason 16′; Great: Gamba 8′ and Harmonic Flute 4′; Swell: Lieblich Bourdon 16′; Voix Celeste 8′ and Hautboy 8′), and the *Swell Octave to Great* coupler, were not installed (presumably on funding grounds) and were left prepared for. These were clearly added shortly after. The printed specification does not list the Clarionet 8′, perhaps an error.

Built in a south-facing organ chamber on the side of the chancel, the organ had mechanical action throughout, except for charge pneumatic action to the Pedal division and to the various off-note chests. A simple pipe rack of pitch pine faced into the chancel, while a row of stencilled Bourdon pipes faced into the south aisle. The instrument was hand blown.

During dismantling, it became evident that the pedalboard had been partially re-pieced at some stage. The organ appeared to have otherwise sustained no changes, nor had any other work, beyond the addition of an electric blower and the fitting of tuning slides at some point(s).

[1] *Walsall Advertiser*, 3 December 1887, p.2, cols 3 and 4
[2] *Walsall Observer and South Staffordshire Chronicle*, 7 December 1889, p.5, col. 4
[3] Ibid.

© 2026 Nicholson & Co. Ltd

NICHOLSON & LORD

The roots of the Nicholson & Lord firm started with Richard Nicholson (1788–1862), who began organ building in his home town of Rochdale in the 1820s. Of his 15 children, five sons became organ builders.

John (1815–1895) moved to Worcester in 1841. He traded under his own name. When he retired in 1885, the firm was re-named Nicholson & Co., and we are still going strong.

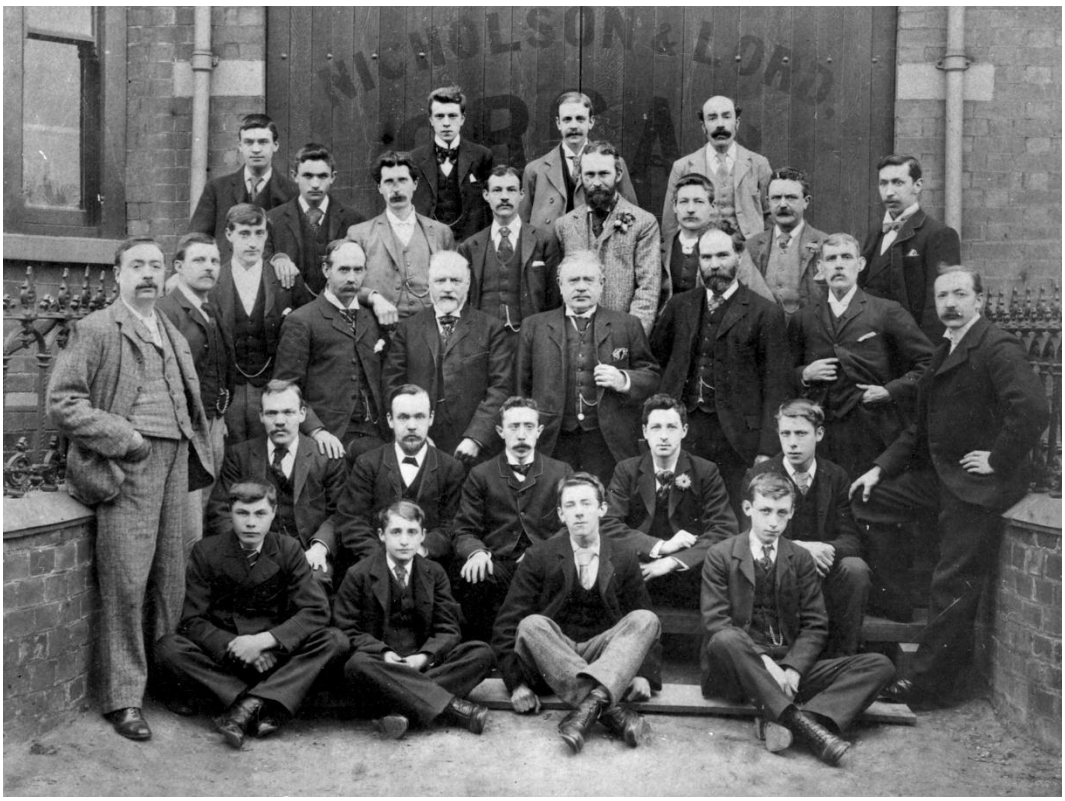
James (1819–c.1890) moved to Newcastle-upon-Tyne in 1843 and set up his own business, now defunct.

Joseph (1823–1855) stayed in Rochdale, worked with his father and died young.

Thomas (1835-1910) moved to Lincoln c.1860 and set up his own business, now defunct.

Of most interest in this instance is the youngest of the five, Charles (1840–1909). In 1861, he moved with his father Richard from Rochdale to Walsall. They set up a new company called Nicholson & Son, and brought with them various employees, including Edmund Lord (born 1832 in Rochdale) and Edmund's wife Emma, also Rochdale-born. Unfortunately, Richard died only a year later in 1862, leaving 22-year-old Charles newly arrived in Walsall on his own with his mother Maria (Richard's second wife). The business continued however, trading as Nicholson & Son, owned by Charles and Maria. Among their employees remained Edmund Lord. In 1874, Edmund was taken into partnership and the firm's name was changed to Nicholson & Lord.

© 2026 Nicholson & Co. Ltd



The Nicholson & Lord workforce photographed in 1900

While it always remained a provincial firm, Nicholson & Lord flourished. Most of the company's work was building small but well-built instruments in their workshop at Vicarage Place, Walsall, for churches around the Midlands. The firm's *magnum opus* was the four-manual organ for Walsall Town Hall, completed in 1908.

Nicholson & Lord continued trading until subsumed into the Birmingham firm of Walter J. Bird in 1951. That firm was in turn subsumed into Nicholson & Co. in 1953.

Further reading:

- Berrow, James, *The making of an English organ builder: John Nicholson* (BIOS, 2021)
- Elvin, Laurence, *Pipes and Actions: Some Organ Builders in the Midlands and Beyond* (Laurence Elvin, 1995)

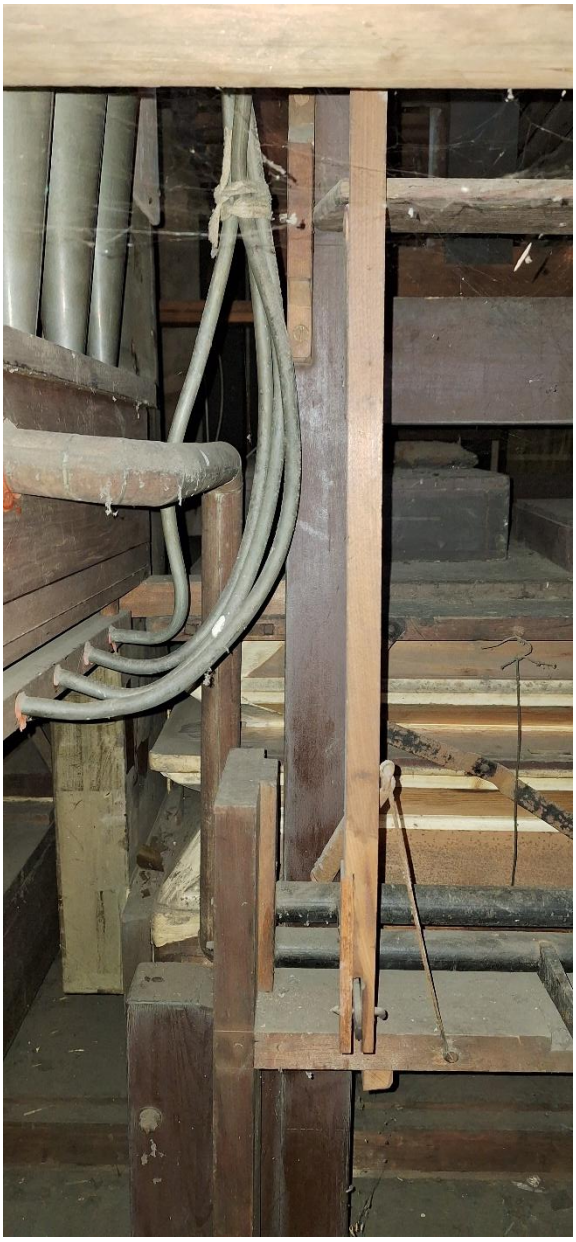
© 2026 Nicholson & Co. Ltd

CONDITION PRIOR TO RESTORATION

The organ was in regular use, but was in very poor condition indeed, partly through age and partly through heat damage from a fire in an adjacent building. The whole instrument was filthy and worn out, and the leatherwork was perished. It was only just playable.



General view

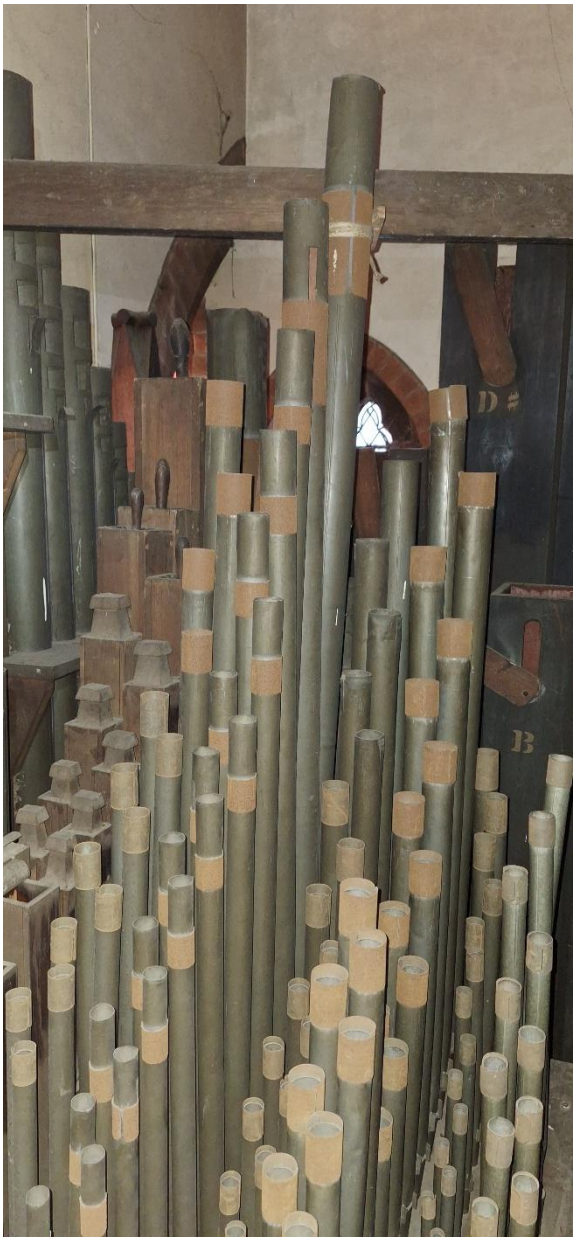


Gamba off-note chest and reservoir

© 2026 Nicholson & Co. Ltd



Swell rollerboard and pull-downs



Great pipework

© 2026 Nicholson & Co. Ltd



Heat-damaged wind trunks



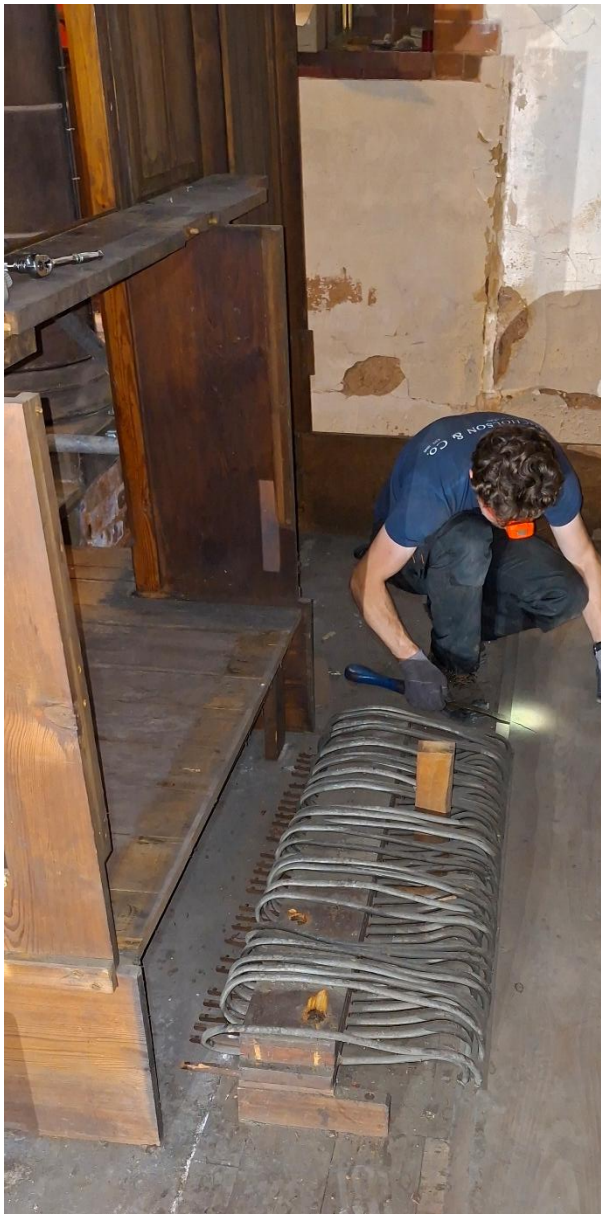
Swell pipework

© 2026 Nicholson & Co. Ltd

DESCRIPTION OF RESTORATION

Programme

The organ was dismantled in July 2025 and was almost entirely removed to our Malvern workshop for restoration, leaving only part of the casework in position.



Disconnecting the pedal touchbox



Removing the Swell reservoir

© 2026 Nicholson & Co. Ltd



Clearing the Great soundboard

© 2026 Nicholson & Co. Ltd



Chamber empty for first time since 1889

This complete clearance of the organ chamber permitted the replastering of the chamber walls, and the repair / sanding / re-sealing of the parquet floor.

© 2026 Nicholson & Co. Ltd



Refurbished chamber

The restoration and installation work was completed in September 2026.

© 2026 Nicholson & Co. Ltd

Key actions - mechanical

The manual key actions (balanced), and all couplers, are entirely mechanical, and their restoration was straightforward. The trackers were generally in good condition. All of the steel wires have been replaced with phosphor bronze and re-whipped.



Broken backfall ends

Square beams, backfalls and rollerboards were extremely worn. Many of the console action registers had broken. These have all been thoroughly restored and re-bushed using matching material to original. New cloths and leather buttons have been fitted throughout.

© 2026 Nicholson & Co. Ltd



Restoration of coupling chassis



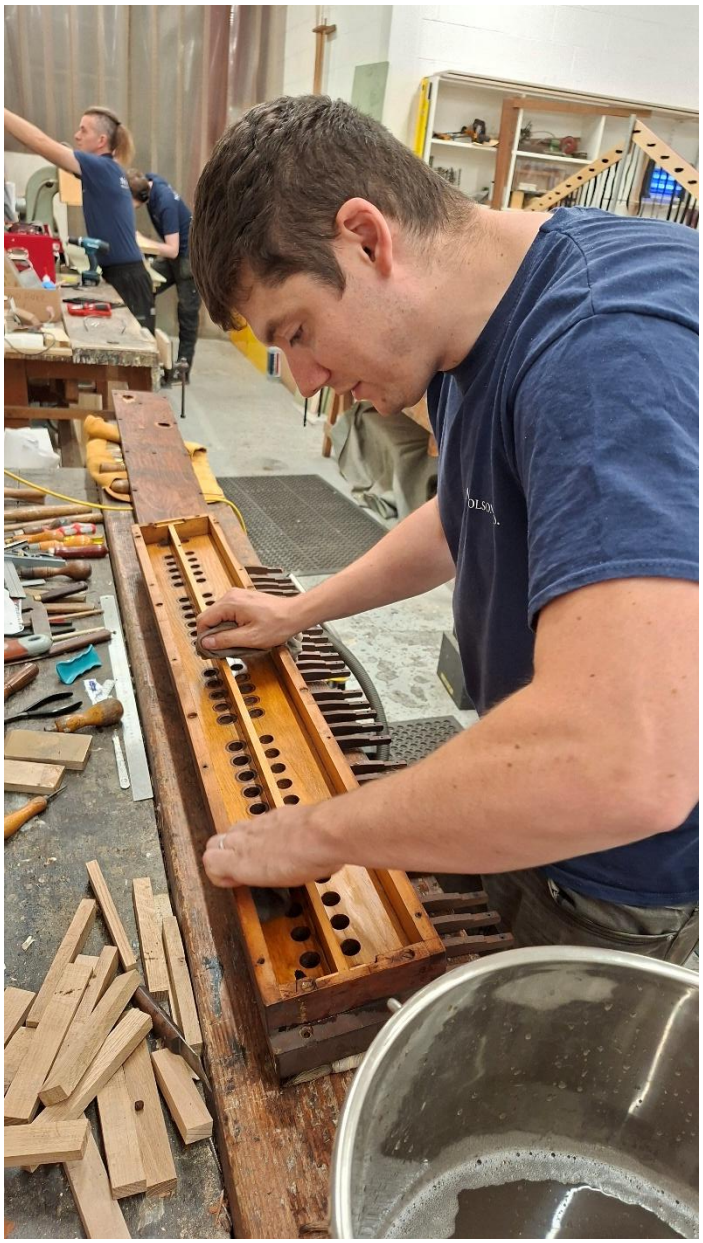
New phosphor-bronze wires on trackers

© 2026 Nicholson & Co. Ltd

Key actions – pneumatic

The pedal key actions are charge pneumatic. The pedals operate backfalls mounted on top of a touchbox. This has two output channels – one for each pedal stop – which are only charged with wind when the relevant stop is drawn.

The touchbox has been fully restored. The pedal chests have Roosevelt actions activated by an external purse. The lead tubing was mostly in good condition after cleaning; it has been repaired, with necessary replacements being made of matching lead tubing.



Touchbox restoration

© 2026 Nicholson & Co. Ltd

All of the manual off-notes are mounted on pneumatic chests operated by lead tubing from the soundboard pipe holes. The chests themselves are described in more detail later in the report.



Restoration of lead tubing



Lead tubing exposed to daylight for the first time since 1889

Drawstop and combination action

The manual drawstop actions are entirely mechanical, and again their restoration has been straightforward. Paintwork on the metal components was in poor condition and has been repainted to match the original colour.

© 2026 Nicholson & Co. Ltd



Restoration of mechanical stop action

The settings on the combination pedals were very unorthodox and had clearly been modified; these have now been altered to more appropriate registrations.

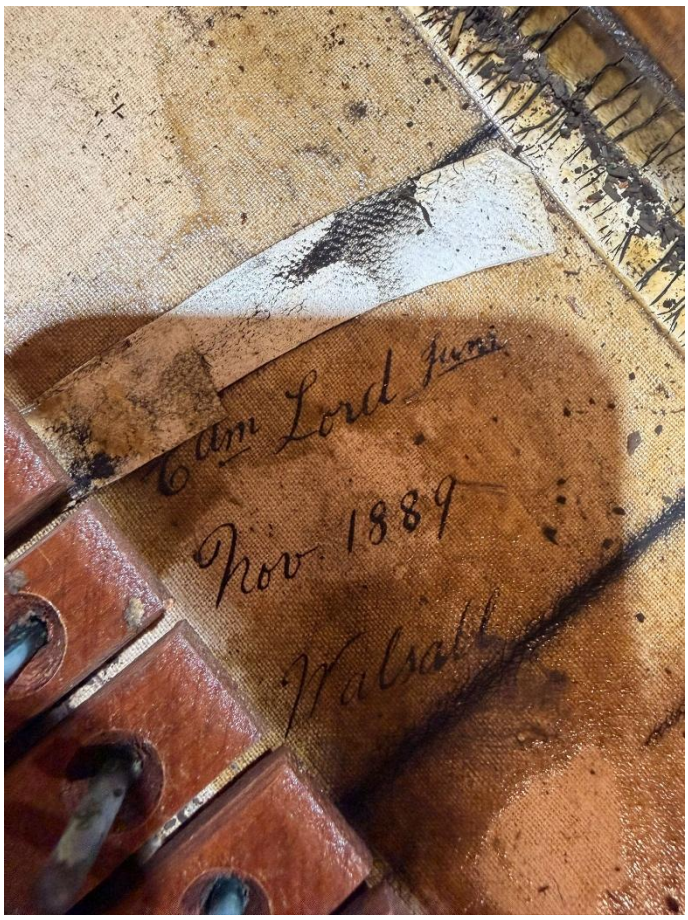
The pedal drawstop actions are by pneumatic ventil. The respective pedal chests are constantly winded; the ventils act only on the pedal touchbox output channels.

Soundboards and chests

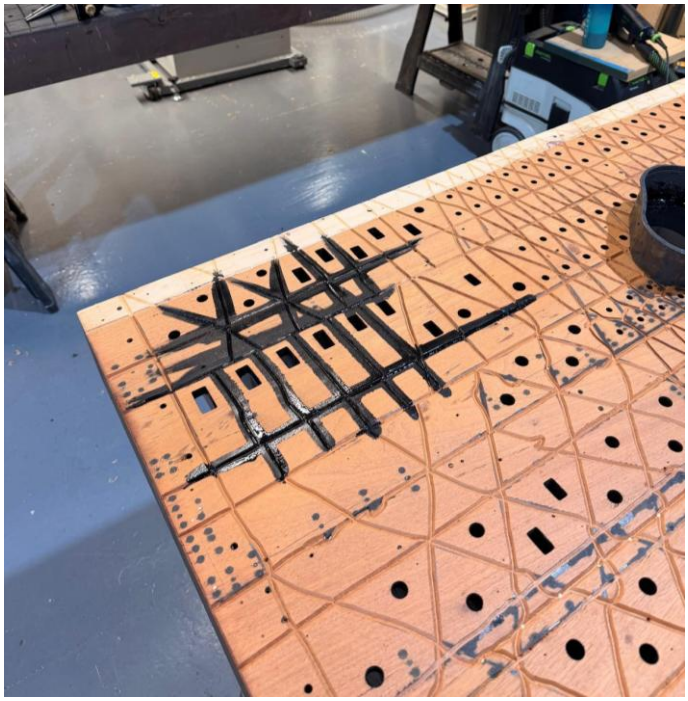
The two manual soundboards are of conventional construction. Interestingly, the bottom octave of the Swell soundboard is fitted with double pallets that have clearly never been commissioned; they are in any case not necessary. Placing the lowest ten notes of the Lieblich Bourdon 16' onto pneumatic off-note chests, rather than conveyed onto to pipe blocks, may perhaps have been a late decision.

Restoration was routine with all pallets recovered in felt and leather, and the grid flooded and recovered. Splits in the tables were pegged, screwed and filled. The pull-downs and registers have been renewed. All pallet guide pins and pull-down eyes have been replaced with new of phosphor bronze. Springs have been retained and treated for corrosion. The table, slides and underside of the original upperboards were planed true and graphited in the usual way.

© 2026 Nicholson & Co. Ltd



Signature of Edmund Lord junior



Repairing splits

© 2026 Nicholson & Co. Ltd



Glue flooding



Restored soundboard

© 2026 Nicholson & Co. Ltd

Somewhat surprisingly, this modest 20-stop tracker action organ has no fewer than **nine** pneumatic chests:

- (Ped) Open Diapason 16′ C1–G8
- (Ped) Open Diapason 16′ G#9–G#21
- (Ped) Open Diapason 16′ A22–F30
- (Ped) Bourdon 16′ C1–F30
- (Gt) Open Diapason 8′ C1–F#19 and Principal 4′ C1–C#2
- (Gt) Gamba 8′ C1, D3, E5, F#7
- (Gt) Gamba 8′ C#2, D#4, F6, G8
- (Sw) Lieblich Bourdon 16′ C1, D3, E5, F#7, G#9
- (Sw) Lieblich Bourdon 16′ C#2, D#4, F6, G8, A10

These are all of simple Roosevelt type, albeit frustratingly of the form where internal access for adjustment is from the top, even on the chest with the largest 16′ pipes! They have been restored in similar form to the soundboards, with all pneumatic leather renewed.



Restored chest action

© 2026 Nicholson & Co. Ltd



Repairing split in chest

© 2026 Nicholson & Co. Ltd

Wind system

The organ was originally hand-blown, until some stage when an electric blower was fitted. The pumping lever has been removed but the remainder of the hand pumping apparatus remains intact, albeit now out of use.

The blower was condemned electrically and has been replaced with new, within a new silencing cabinet. A new wind control has also been fitted. As no blower was envisaged when the organ was built, routing the wind from the blower into the reservoir is challenging. We have in fact run three trunks (one of timber and two of metal) in parallel, weaving between the pipe feet of the (Pedal) Open Diapason 16'.

The main reservoir, which is fed by the blower and has the feeders attached, feeds (at 85mm wg) the Great soundboard, all chests except for the two Swell off-note chests, and the touchbox via the ventils referred to earlier. It also feeds the Swell reservoir, which supplies the Swell at 75mm wg. The Swell reservoir is in a very buried position, trapped inside a tight building frame immediately below the Swell soundboard. It has a fixed non-adjustable internal wind control. Both reservoirs have been restored and re-leathered. The one-way valves between the feeders and the main reservoir have been sealed off in a reversible manner.



Main reservoir stripped; one-way valves from feeders visible

© 2026 Nicholson & Co. Ltd



Repairing split in well of Swell soundboard



Reservoir re-leathering

Interestingly, the reservoir weights are not of the usual cast metal weight form, but are wooden trays packed with metalworking offcuts – readily available amid the foundries of Victorian Birchills – and lidded over.

© 2026 Nicholson & Co. Ltd



Reservoir weight with lid removed for examination of metal offcuts not seen since 1889

All trunking is of metal or timber. The timber trunks were all papered but these had suffered from delamination partly due to heat from the fire. These have all been cleaned, repaired, re-papered and re-bedded. The metal trunks have been cleaned repaired and re-bedded.



Restored wind trunk

© 2026 Nicholson & Co. Ltd

The (Swell) tremulant is fixed to the rear chamber wall and has been restored. It was missing its regulator slide which has been replaced.



Tremulant restoration

A handful of Swell bass pipes are conveyed; these conveyances have been repaired.

© 2026 Nicholson & Co. Ltd

Pipework

The pipework was dirty but in reasonable physical condition. The tuning springs and slides were badly corroded and have been renewed. Many of the wooden basses had split. Some of the Swell reeds had collapsed.

All of the pipework has been thoroughly cleaned, and repaired as necessary to place it into good condition. New tuning slides have been fitted throughout, and many of the cork stoppers have had to be replaced. All pipe speech has been checked and regulated as required. No historical adjustments to the voicing or pipework balances were evident, and none have been carried out in our work. The tierce rank with the (Swell) Mixture III is astonishingly bold, but we have left this as found.

A few façade and Open Diapason 16′ pipes would not tune sufficiently flat (they never will have) and have been adjusted accordingly.

The pitch is 453.5Hz @ 16.5°C i.e. Old Philharmonic Pitch as commonly used in the 19th century.



Restoring the (Swell) Mixture III

© 2026 Nicholson & Co. Ltd



Strengthening brace fitted to (Swell) Cornopean 8′ resonator



(Pedal) Bourdon 16′ stoppers re-leathered

© 2026 Nicholson & Co. Ltd



(Swell) Mixture III speech being checked

A wooden dust cover for the Clarionet 8′ was found inside the organ chamber. Due to the difficulties this would present in pipe speech and regulation (presumably the reason for its relegation to the back of the chamber), this has been left inside the organ chamber but unfitted, as found.



Clarionet dust cover

Console

The console was in very poor condition. Various inappropriate electrical fittings had accumulated, and the woodwork was very bruised and tired.

All damaged woodwork has been repaired and re-finished. The keys – original but recovered in ivorine – have been re-bushed. The key timbers were extremely worn and have had to be re-pieced before re-bushing.

© 2026 Nicholson & Co. Ltd



Re-pieced keys

The straight and concave pedalboard had clearly been re-pieced at some stage. This has been repeated with matching timber, and the pedalboard fully re-bushed.



Pedalboard restoration

All bushings around the drawstop shanks have been renewed, and the missing wind tell-tale replaced. New console lighting has been fitted. The glass in the sliding doors was broken and has been replaced. The bench had been subject to considerable poor repair and has been strengthened more appropriately.

© 2026 Nicholson & Co. Ltd



New braces fitted to bench



Restoration of console woodwork

A new light switch and blower switch have been fitted. The missing tell-tale has been replaced.

© 2026 Nicholson & Co. Ltd



© 2026 Nicholson & Co. Ltd

Expression box and mechanism

The expression box mechanism and shutters have been overhauled and re-felted. The pedal remains in its original ratchet lever form.

Building frame and casework

The building frame was in good condition and has simply been cleaned with a few minor repairs. The casework required more repair, with numerous short grain splits. It has been cleaned, repaired and re-finished.

The façade pipes had originally been bare metal but had been painted silver (in situ!) very poorly at some stage. These have been rubbed down, sprayed in gun-metal grey, and the mouths have been gilded.



© 2026 Nicholson & Co. Ltd

The (Pedal) Bourdon pipes are arrayed in an arch between the organ chamber and the head of the north aisle. They cannot be seen due to the presence of an altar and reredos in front of them. During dismantling, it became clear that when the organ had been built, the altar/reredos were not present: the outer row of Bourdon pipes is overlength and stencilled. These decorations have been cleaned very gently but not otherwise cosmetically restored. They are once again out of sight.



Stencilled Bourdon pipes facing down north aisle, normally hidden from view

A small gap between the stone arch and the top of the reredos is filled with a clothed panel; the cloth has been renewed.

Internal maintenance lights have been fitted, and maintenance access improved by the fixing of the ladder, bracing of a wind trunk that needs to be stepped on, and by protection of lead tubing.

Techniques and reference material

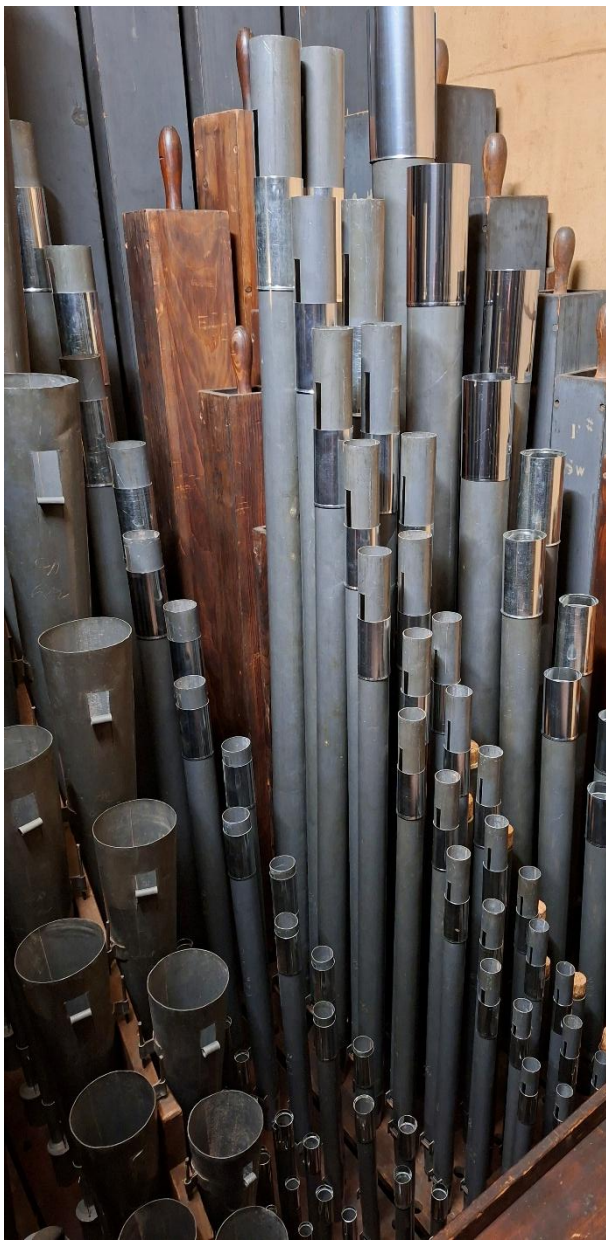
Hot animal glue has been used for all gluing activities in the restoration. Unless noted otherwise in this report, all new materials have been selected to match original material that survived prior to the restoration.

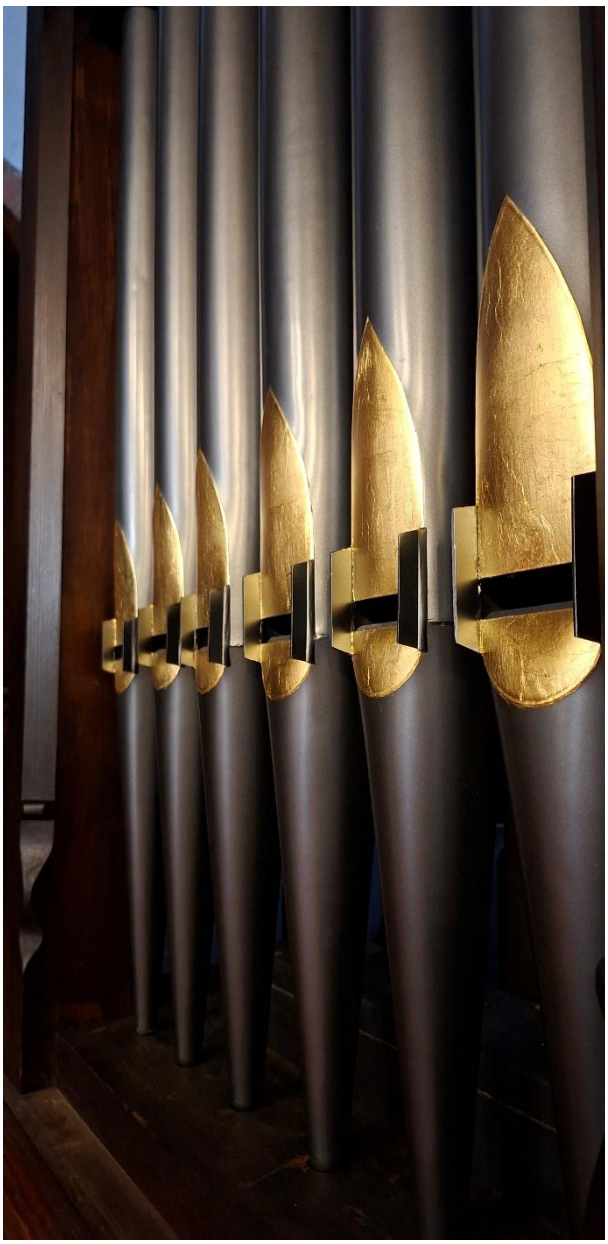
© 2026 Nicholson & Co. Ltd



(loudspeaker and heater removed via AI)

© 2026 Nicholson & Co. Ltd







Copyright © 2026 Nicholson & Co. Ltd. All rights reserved.
This document may not be copied, reproduced, distributed
or revised in whole or in part without our prior written consent.

© 2026 Nicholson & Co. Ltd

ST ANDREW'S CHURCH
BIRCHILLS
WALSALL

Nicholson & Lord, Walsall, 1889

PEDAL ORGAN (C to f¹)		Feet	Pipes	Remarks
1.	Open Diapason	16	30	wood, open
2.	Bourdon	16	30	wood, stopped

Great to Pedals *Swell to Pedals*

GREAT ORGAN (C to g³)		Feet	Pipes	Remarks
3.	Open Diapason	8	56	metal, open, part in façade
4.	Stopped Diapason Bass	8	12	C1–B12 only; wood, stopped
5.	Clarabella Treble	8	44	from C13; wood, open
6.	Gamba	8	56	metal, open
7.	Dulciana	8	44	from C13; metal, open
8.	Principal	4	56	metal, open
9.	Harmonic Flute	4	56	metal, open, harmonic treble
10.	Fifteenth	2	56	metal, open
11.	Clarionet	8	44	from C13; metal, open

Swell to Great *Swell Octave to Great*

SWELL ORGAN (C to g³)		Feet	Pipes	Remarks
12.	Lieblich Bourdon	16	56	wood, stopped
13.	Open Diapason	8	44	C1–B12 from 14; metal, open
14.	Lieblich Gedact	8	56	stopped, wood bass, metal treble
15.	Viol d'Amour	8	44	C1–B12 from 14; metal, slotted
16.	Voix Celeste	8	44	from C13; metal, slotted
17.	Geigen Principal	4	56	metal, open
18.	Mixture *17.19.22*	III	168	metal, open
19.	Cornopean	8	56	metal, open
20.	Hautboy	8	56	metal, half-capped

Tremulant

© 2026 Nicholson & Co. Ltd

Actions

Manuals: mechanical (balanced), except some off-note basses
Manual off-note basses: some conveyed, some charge pneumatic actioned from soundboards
Pedals: charge pneumatic
Coupling: mechanical
Slider and combination action: mechanical

Accessories

Lever expression pedal to Swell Organ
2 combination pedals to Great
2 combination pedals to Swell

Pitch

A=458.1Hz; C=545.5Hz @ 22.2°C

Wind pressures

Pneumatic action, Great and Pedal: 85mm
Swell: 75mm



ESTABLISHED 1841

© 2026 Nicholson & Co. Ltd