The organ was built during 1950–1954 to the specification of the London County Council's consultant, Ralph Downes, who also supervised the tonal finishing. It was designed as "a well-balanced classical instrument embracing a number of rich and varied ensembles which alone or in combination could equal the dynamic scale of any orchestra or choral grouping in addition to coping with the entire solo repertoire". Its epoch-making classical design caused a sensation and changed the course of English organ building in the twentieth century.

The Hall was reconstructed between 2005 and 2007; at the start of this work the entire organ was dismantled and removed to Durham for storage near our workshop. During the next eight years it was overhauled and reconfigured in stages to suit the new architectural requirements, which include an enlarged orchestral platform. The organ’s depth has been reduced by 1.1m, but the basic principles of the original layout have been respected. The 1954 specification remains unaltered, and the organ’s unique character has been carefully preserved. It was re-inaugurated on its 60th anniversary in March 2014.
PEDAL ORGAN
1. Principal (from 54) 32
2. Major Bass 16
3. Principal 16
4. Sub Bass 16
5. Quintadena (from 74) 16
6. Salicional (from 40) 16
7. Quintflute (stopped) $10^{2/3}$
8. Octave 8
9. Gedackt 8
10. Quintadena (from 74) 8
11. Nazard (conical) $5^{1/3}$
12. Superoctave 4
13. Spitzflute (conical) 4
14. Open Flute 2
15. Septzer 17.21 $3^{1/3}$
16. Rauschquint 12.15 $5^{1/3}$
17. Mixture 19.22.26.29.33 $2^{1/3}$
18. Bombarde (from 19) 32
19. Bombarde 16
20. Dulzian (from 38) 16
21. Trumpet 8
22. Cromorne (from 52) 8
23. Clarion 4
24. Schalmei (from 53) 4
25. Cornett 2

I  Positive and Choir to Pedal
II  Great to Pedal
III  Swell to Pedal
IV  Solo to Pedal

CHOIR ORGAN
(on Positive keys, enclosed)
40. Salicional 16
41. Open Wood 8
42. Stopped Wood 8
43. Salicional (conical) 8
44. Una Maris (conical) 8
45. Spitztastave (conical) 4
46. Open Flute 4
47. Principal 2
48. Quint $1^{1/3}$
49. Octave 1
50. Sesquialtera 26.33 $2^{1/3}$
51. Mixture 29.33.36.40 $1^{1/2}$
52. Cromorne 8
53. Schalmei 4

IX Tremulant
X Choir on Solo

GREAT ORGAN
54. Principal 16
55. Gedacktpommer 16
56. Diapason 8
57. Principal 8
58. Harmonic Flute 8
59. Rohr Gedackt 8
60. Quintflute (stopped) $5^{1/3}$
61. Octave 4
62. Gemshorn (conical) 4
63. Quintadena 4
64. Quint $2^{1/3}$
65. Super Octave 2
66. Blockflute 2
67. Tierce $1^{1/3}$
68. Mixture 15.19.22.26.29 2
69. Sharp Mixture 26.29.33.36 $2^{1/3}$
70. Cornet 1.8.12.15.17 (middle c) 8
71. Bombarde 16
72. Trumpet 8
73. Clarion 4

XI Sub Octave
XII Reeds and Cornet on Solo
XIII Positive and Choir to Great
XIV Swell to Great
XV Solo to Great

SWELL ORGAN
74. Quintadena 16
75. Diapason 8
76. Gemshorn (conical) 8
77. Quintadena 8
78. Viola 8
79. Celeste 8
80. Principal 4
81. Koppelflute 4
82. Nazard (conical) $2^{1/3}$
83. Octave 2
84. Open Flute 2
85. Tierce (tenor f) $1^{1/3}$
86. Flageolet 1
87. Mixture 22.26.29.33 1
88. Cymbel 38.40.43 $1^{1/3}$
89. Hautboy 8
90. Vox Humana 8

XVI Tremulant
91. Bombarde 16
92. Trumpet 8
93. Clarion 4

XVII Octave (16ft, 8ft and 4ft stops only)
XVIII Solo to Swell

SOLO ORGAN
(enclosed)
94. Diapason 8
95. Rohrflute 8
96. Octave 4
97. Waldflute (conical) 2
98. Rauschquint 12.15 $2^{1/3}$
99. Tertian 17.19 $1^{1/3}$
100. Mixture 19.22.26.29.33 $1^{1/3}$
101. Bassett Horn 16

XIX Tremulant
102. Harmonic Trumpet 8
103. Harmonic Clarion 4

COMBINATION COUPLERS
(rocking tablets)
XX Great and Pedal Combinations coupled
XXI Swell on General foot pistons

ACCESSORIES
Eight general pistons (duplicated by foot pistons)
Eight foot pistons to the Pedal Organ
Eight pistons to the Choir and Positive Organs (combined)
Eight pistons to the Great Organ
Eight pistons to the Swell Organ
Eight pistons to the Solo Organ
Reversible pistons: I - IV, VII, VIII, XIII, XIV, XV, XVIII
Reversible foot pistons: I - IV

General cancel piston
Full organ piston and foot piston
Stepper, operating general pistons
512 general and eight divisional memory levels
General crescendo pedal, with one fixed and three adjustable settings
Balanced expression pedals to the Choir, Swell and Solo Organs
The actions are electro-pneumatic
The manual compass is 61 notes; the pedal compass is 32 notes