

PIPE SCALE DETAILS

MANDER ORGANS

JOB: ST PETER'S, ST ALBANS – FINAL

DATE: 21 March 2005

INITIALS: MB

PITCH: A 440 @ 20°C

TUNING METHOD: Cone & Slot

TEMPERAMENT: ET

DEPARTMENT: Great Organ

PRESSURE: 80mm

No	Stop Name	Pitch	Pipes	Mat	Ears	MW	C ¹	C ¹³	C ²⁵	C ³⁷	C ⁴⁹	C ⁶¹	Remarks
1a	Double Diapason	16	24	Wood			145x 115	91.5x 73					Stopped Wood Scale No. 33
1b	Double Diap. Trebs	16	37	56%	25-48	4			74	43.5	27	17	Small Ears
2	Open Diapason	8	61	75%	Small 1-36	4	150	90	55	34	20	13	Fronts 1-25 Details from D.O.
3	Stopped Diapason	8	61	Wood			107x85	67x53. 5	42.5x3 3.5	26.5x2 1	17x13. 5	10.5x8. 4	Stopped Wood No. 41
4	Harmonic Flute	8	61	56%	13-36	4		85	57	38	25.5	14.5	1-12 common to 3 Harmonic from 31
5	Principal	4	61	56%	1-24	4	89	54	32	20	12	7.5	Small Ears
6	Open Flute	4	61	35%	1-30	1-12 4 rem4.5	87 B=60	62/41	42.5/28	28.5/19	19/12.5	12.5/8. 5	1-12 domed canisters 13-61 tapered to 2/3rds
7	Twelfth	2 ² / ₃	61	56%	1-18	4	61	38	23	14	9	5.5	Small Ears
8	Fifteenth	2	61	56%	1-12	4	52	31	19	11.5	7.5	5	Small Ears
9	Seventeenth	1 ³ / ₅	61	56%	1-8	4	42	26	15.5	9	5.5	g ⁵⁰ =4	57-61 @3 ¹ / ₅ ' pitch. Small Ears
10	Mounted Cornet III Ten G to top G 20-56: 2 ² / ₃ .2.1 ³ / ₅	2 ² / ₃	111	35%	None	4.5	(1' 38)	1 ² / ₂ ' 25	1 ⁴ / ₄ ' 17	1 ⁸ / ₈ ' 11	(1 ¹ / ₁₆ ' 6)		
11	Furniture IV 1-6: 1 ¹ / ₃ .1. ² / ₃ .1 ¹ / ₂ 7-18: 2.1 ¹ / ₃ .1. ² / ₃ 19-30: 2 ² / ₃ .2.1 ¹ / ₃ .1 31-42: 4.2 ² / ₃ .2.1 ¹ / ₃	1 ¹ / ₃	244	56%	None	4	(2' 45)	1' 28.5	1 ¹ / ₂ ' 18	1 ⁴ / ₄ ' 11.5	1 ⁸ / ₈ ' 7	1 ¹ / ₁₆ ' 4.5	

	43-61: 8.4.2 ² / ₃ .2.												
12	Trumpet	8	61	56%			120	92	71	54	45	g = 40	Shallots NPM Scale No. 13 57-61 flues as Open Diap. 8

DEPARTMENT: Swell Organ

PRESSURE: 85mm

JOB: SPSA

No	Stop Name	Pitch	Pipes	Mat	Ears	MW	C ¹	C ¹³	C ²⁵	C ³⁷	C ⁴⁹	C ⁶¹	Remarks
13	Open Diapason	8	61	56%	small 1-36	4	140	84	50.5	30.5	18	11	
14	Gedackt	8	61	56%	1-42	4.5	115	78	53	36	24.5	16.5	1-6 with stays 57 -61 open tapered by 1/2 Domed canisters
15	Salicional	8	61	56%	1-48	4	93 (F#73)	56.5	36	22.5	14	10	Parallel slotted beards as req. 1-6 common to 14
16	Voix Celeste (T.C.)	8	49	56%	13-48	4		51	33	20.5	14	9	Parallel slotted. Tuned Flat.
17	Principal	4	61	56%	1-24	4	87	52	31	19.5	12	7	
18	Nason Flute	4	61	35%	1-30	5	73	49	33	22	15	10	1-36 stopped 37-61 upper Ø 1/2 scale
19	Fifteenth	2	61	56%	1-12	4	50	30	19	11.5	7	5	
20	Mixture III-IV 1-10: 1 ¹ / ₃ .1. ² / ₃ 11-20: 2.1 ¹ / ₃ .1. ² / ₃ 21-30: 2 ² / ₃ .2.1 ¹ / ₃ .1 31-46: 4.2 ² / ₃ .2.1 ¹ / ₃ 47-61: 8.4.2 ² / ₃ .2	1	183	56%	none	4	1' 27	1/2' 17	1/4' 11	1/8' 7	1/16' 4. 5		
21	Bassoon	16	61	56%			120 b=95	100	78	60	44.5	34.5	1-12 half length Domed shallots scale no. 5
22	Trumpet	8	61	56%			110	85	65	50	39	g56=3 3	57-61 flues as Great Prin4 Sq Shallots No.1
23	Oboe	8	61	56%			70 G8=55 G#9= 76	66	47	39	34 C#50 =30	21	57-61 flues scaled as Salic. 8 Scale details as St. John's Cor Anglais. Domed shallots scale no. 13

24	Vox Humana	8	61	56%		Scale Tot. l cone l	41 430 80	37 270 68	34 190 56	31 130 52	28 100 48	g56 27 58 38	Soldered on flaps 1-36 (more if needed during voicing) 57-61 flues scaled as Salic. 8. Shallots domed No.13 Long Springs may be required.
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DEPARTMENT: Choir Organ

PRESSURE: 75mm

JOB: SPSA

No	Stop Name	Pitch	Pipes	Mat	Ears	MW	C ¹	C ¹³	C ²⁵	C ³⁷	C ⁴⁹	C ⁶¹	Remarks
25a	Chimney Flute Basses	8	1-12	Wood			107x85 B=70x 55.5						Stopped Wood No. 41
25b	Chimney Flute	8	13-61	35%	1-42	4		75	46	29	19	12.5/8	13-56 internal chimneys 1/4Ø, l=Ø 49-61 open tapered upper Ø to 2/3 scale
26	Viola da Gamba	8	13-61	56%	13-48			84/56	50/33.5	30/20	18/12	11/7.5	1-12 common to 25a Tapered to 2/3rds
27	Principal	4	61	56%	1-24 small	4	83	49	29	17	11	6	
28	Koppel Flute	4	61	35%	1-36	4 cone l top Ø	85	56 110 18	36 70 11	24 40 (35) 7 (6)	15.5	10	1-12 solid domed canisters 13-45 Koppel canisters 46-61 tapered 1/2
29	Nazard	2 ² / ₃	61	35%	1-24	4.5	65	41	26	16.5	10	6.5	
30	Piccolo	2	61	35%	1-18	4.5	53	34	21.5	13.5	8.5	5.5	
31	Tierce	1 ³ / ₅	61	35%	1-14	4.5	45.5	28.5	18	11.5	7.5	g=6	56-61 as 3 ¹ / ₅
32	Sharp Mixture III 1-12: 1. ² / ₃ .1 ¹ / ₂ 13-24: 1. ¹ / ₃ .1. ² / ₃ 25-36: 2.1 ¹ / ₃ .1 37-52: 2. ² / ₃ .2.1 ¹ / ₃ 53-61: 4.2 ² / ₃ .2	1	183	56%	none	4	(1' 25)	1 ¹ / ₂ ' 15.5	1 ¹ / ₄ ' 10	1 ¹ / ₈ ' 6	1 ¹ / ₁₆ ' 4.5		
33	Cremona	8	61	56%		scale total l	35 1500	30 780	25 410	23 210	21 95	g=20 50	1-12 Capped Canisters 13-24 Open Canisters

						cone 1	180	125	80	60	42	25	57-61 flues scaled as Prin 4. Square shallots scale no. 13
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DEPARTMENT: Pedal Organ

PRESSURE: 90mm

JOB: SPSA

No	Stop Name	Pitch	Pipes	Mat	Ears	MW	C ¹	C ¹³	C ²⁵	G ³²	Remarks
34	Open Diapason	16	32	Wood			250x 200	156x 125	100x80	76x60	Open Scale No. 13
35	Bourdon	16	32	Wood			198x 163	125x 103	79x 65	60x50	Bourdon Scale No. 15
36	Quint	10 2/3	32	Wood			140x 115	88x73	56x46	43x35	Bourdon Scale No. 24
37	Principal	8	32	75%	1-32	4	155	93	55	41	Fronts 1-25 Details from D.O. Small Ears
38	Fifteenth	4	32	56%	1-24	4	90	55	34	27	Small Ears
39	Trombone	16	32	56%			158	123	93	80	Full length. Shallots NPM Scale No. 1