

Lamont Harp string chart (reconstructed original state)



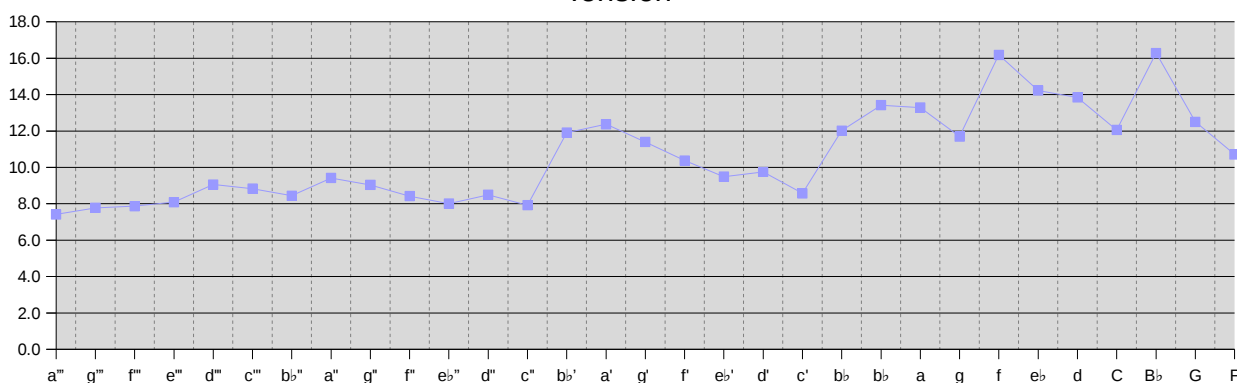
Tuned in $b\flat$ - or at a dual pitch standard of A523/392

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pin	shoe	Freq.	Note	High Pitch	Low Pitch	Length (cm)	Length (in)	Gauge (mm)	Gauge (in)	Tension (kgf)	Metal
1	1	1760	a'''	1660 f'''	1760 b'''	6.7	2.6	0.44	0.017	7.4	Yellow brass
2	2	1568	g'''	1568 e'''	1568 a'''	7.7	3.0	0.44	0.017	7.8	Yellow brass
3	3	1396	f''	1396 d''	1396 g''	8.7	3.4	0.44	0.017	7.9	Yellow brass
4	4	1244	e''	1244 c''	1244 f''	9.9	3.9	0.44	0.017	8.1	Yellow brass
5	5	1174	d''	1174 b''	1174 e''	11.1	4.4	0.44	0.017	9.1	Yellow brass
6	6	1046	c''	1046 a''	1046 d''	12.3	4.8	0.44	0.017	8.8	Yellow brass
7	7	932	$b\flat''$	932 g''	932 c''	13.5	5.3	0.44	0.017	8.4	Yellow brass
8	8	880	a''	830 f''	880 b''	15.1	5.9	0.44	0.017	9.4	Yellow brass
9	9	784	g''	784 e''	784 a''	16.6	6.5	0.44	0.017	9.0	Yellow brass
10	10	698	f''	698 d''	698 g''	18	7.1	0.44	0.017	8.4	Yellow brass
11	11	622	$e\flat''$	622 c''	622 f''	19.7	7.8	0.44	0.017	8.0	Yellow brass
12	12	587	d''	587 b'	587 e''	21.5	8.5	0.44	0.017	8.5	Yellow brass
13	13	523	c''	523 a'	523 d''	23.3	9.2	0.44	0.017	7.9	Yellow brass
14	14	466	$b\flat'$	466 g'	466 c''	25.2	9.9	0.56	0.022	11.9	Yellow brass
15	15	440	a'	415 f'	440 b'	27.2	10.7	0.56	0.022	12.4	Yellow brass
16	16	392	g'	392 e'	392 a'	29.3	11.5	0.56	0.022	11.4	Yellow brass
17	17	349	f'	349 d'	349 g'	31.4	12.4	0.56	0.022	10.4	Yellow brass
18	18	311	$e\flat'$	311 c'	311 f'	33.7	13.3	0.56	0.022	9.5	Yellow brass
19	19	294	d'	293.5 b	293.5 e'	36.2	14.3	0.56	0.022	9.7	Yellow brass
20	20	262	c'	261.5 a	261.5 d'	38.1	15.0	0.56	0.022	8.6	Yellow brass
21	21	233	$b\flat$	233 g	233 c'	40.5	16.0	0.7	0.028	12.0	Yellow brass
22	22	233	$b\flat$	233 g	233 c'	42.8	16.9	0.7	0.028	13.4	Yellow brass
23	23	220	a	207.5 f	220 b	45.1	17.8	0.7	0.028	13.3	Yellow brass
24	24	196	g	196 e	196 a	47.5	18.7	0.7	0.028	11.7	Yellow brass
25	25	175	f	174.5 d	174.5 g	50	19.7	0.8	0.032	16.2	Hard Sterling Silver
26	26	156	$e\flat$	155.5 C	155.5 f	52.6	20.7	0.8	0.032	14.2	Hard Sterling Silver
27	27	147	d	147 B	147 e	55	21.7	0.8	0.032	13.8	Hard Sterling Silver
28	28	131	C	131 A	131 d	57.6	22.7	0.8	0.032	12.1	Hard Sterling Silver
29	29	116.5	$B\flat$	116.5 G	116.5 C	60.1	23.7	1	0.039	16.3	Hard Sterling Silver
30	30	98	G	104 F	98 A	62.6	24.7	1	0.039	12.5	Hard Sterling Silver
31	31	87.3	F	87.25 D	87.25 G	65.1	25.6	1	0.039	10.7	Hard Sterling Silver
32											
										TOTAL	328.813

Tension



String lengths are accurate to perhaps +/- 5%. Lengths represent a theoretical original frame as built, and are taken from Karen A. Loomis, *The organology of the Queen Mary and Lamont harps*, PhD thesis, The University of Edinburgh, 2014, p.91
 Online at <https://www.era.lib.ed.ac.uk/handle/1842/19551> (cc by-nc-sa)

Lamont Harp string chart (current broken state) suggested regime



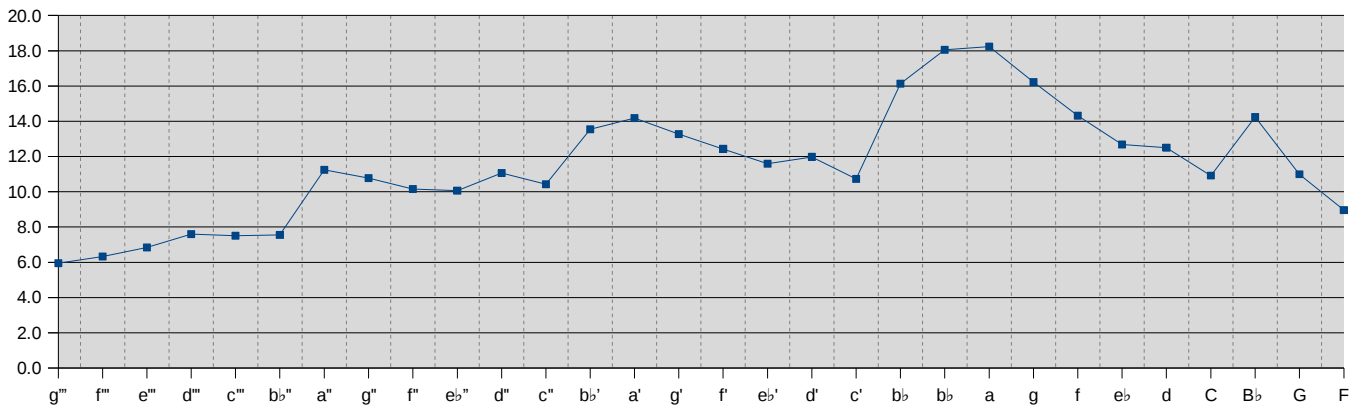
Tuned in $b\flat$ - or at a dual pitch standard of A523/392

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pin	shoe	Freq.	Note	High Pitch	Low Pitch	Length (cm)	Length (in)	Gauge (mm)	Gauge (in)	Tension (kgf)	Metal		
1													
2	1												
3	2	1568	g'''	1568	e'''	1568	a'''	5.7	2.2	0.52	0.02	5.9	Yellow brass
4	3	1396	f'''	1396	d'''	1396	g'''	6.6	2.6	0.52	0.02	6.3	Yellow brass
5	4	1244	e'''	1244	c'''	1244	f'''	7.7	3.0	0.52	0.02	6.8	Yellow brass
6	5	1174	d'''	1174	b''	1174	e'''	8.6	3.4	0.52	0.02	7.6	Yellow brass
7	6	1046	c'''	1046	a''	1046	d'''	9.6	3.8	0.52	0.02	7.5	Yellow brass
8	7	932	$b\flat''$	932	g''	932	c'''	10.8	4.3	0.52	0.02	7.5	Yellow brass
9	8	880	a''	830	f''	880	b''	12.1	4.8	0.6	0.024	11.2	Yellow brass
10	9	784	g''	784	e''	784	a''	13.3	5.2	0.6	0.024	10.8	Yellow brass
11	10	698	f''	698	d''	698	g''	14.5	5.7	0.6	0.024	10.2	Yellow brass
12	11	622	$e\flat''$	622	c''	622	f''	16.2	6.4	0.6	0.024	10.1	Yellow brass
13	12	587	d''	587	b'	587	e''	18	7.1	0.6	0.024	11.1	Yellow brass
14	13	523	c''	523	a'	523	d''	19.6	7.7	0.6	0.024	10.4	Yellow brass
15	14	466	$b\flat'$	466	g'	466	c''	21.5	8.5	0.7	0.028	13.5	Yellow brass
16	15	440	a'	415	f'	440	b'	23.3	9.2	0.7	0.028	14.2	Yellow brass
17	16	392	g'	392	e'	392	a'	25.3	10.0	0.7	0.028	13.3	Yellow brass
18	17	349	f'	349	d'	349	g'	27.5	10.8	0.7	0.028	12.4	Yellow brass
19	18	311	$e\flat'$	311	c'	311	f'	29.8	11.7	0.7	0.028	11.6	Yellow brass
20	19	294	d'	293.5	b	293.5	e'	32.1	12.6	0.7	0.028	12.0	Yellow brass
21	20	262	c'	261.5	a	261.5	d'	34.1	13.4	0.7	0.028	10.7	Yellow brass
22	21	233	$b\flat$	233	g	233	c'	36.5	14.4	0.9	0.035	16.1	Yellow brass
23	22	233	$b\flat$	233	g	233	c'	38.6	15.2	0.9	0.035	18.0	Yellow brass
24	23	220	a	207.5	f	220	b	41.1	16.2	0.9	0.035	18.2	Yellow brass
25	24	196	g	196	e	196	a	43.5	17.1	0.9	0.035	16.2	Yellow brass
26	25	175	f	174.5	d	174.5	g	45.9	18.1	0.9	0.035	14.3	Yellow brass
27	26	156	$e\flat$	155.5	C	155.5	f	48.5	19.1	0.9	0.035	12.7	Yellow brass
28	27	147	d	147	B	147	e	51	20.1	0.9	0.035	12.5	Yellow brass
29	28	131	C	131	A	131	d	53.5	21.1	0.9	0.035	10.9	Yellow brass
30	29	117	$B\flat$	116.5	G	116.5	C	56.1	22.1	1.1	0.043	14.2	Yellow brass
31	30	98	G	104	F	98	A	58.6	23.1	1.1	0.043	11.0	Yellow brass
32	31	87.3	F	87.25	D	87.25	G	59.4	23.4	1.1	0.043	9.0	Yellow brass
										TOTAL	346.442		

Tension



String lengths are approx. +/-2mm, and are taken from

Karen A. Loomis, *The organology of the Queen Mary and Lamont harps*, PhD thesis, The University of Edinburgh, 2014, p.91

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Pitched low to keep the same range as suggested original, and respecting the wire fragment in stringhole 14