

	A	B	C	D	E
1	Bassoon Name	Heckel1-Murry	Heckel2-Murry	Heckel3-Murry	Heckel4-Murry
2	I. Bocal				
3	dia reed end				
4	bocal string length (0, 1)				
5	metal bocal length top (0, 1)				
6	metal bocal length bot (0, 1)				
7	dia wj end				
8					
9	bocal logic	2	2	2	2
10					
11					
12					
13					
14	II. Wing Joint Lengths				
15	choke bore dia.	9.8	9.5	8.8	10.5
16	receiver length (1, 0) (formally choke length)	40	40	35	50
17	wing joint length	522	511	508	500
18	tenon length	37.1	38.3	28.3	35
19					
20	wj f2	247	234	220	223
21	wj e	308	300	298	295
22	wj d	353	347	341	335
23					
24	Bore dia. Bottom of wing joint	17.5	17.5	15.6	15.9
25	Bore dia. top of boot joint small side	17.1	17	16.7	16.5
26	Bore dia. top of boot joint large side	24.5	23.5	24.6	24.1
27					
28	III. Boot Lengths				
29	bj logic	1	1	1	1
30	bj c	53	60	55	56
31	bj b	113	113	110	114
32	bj a	275	268	265	275
33					
34	bjtotal [Needed for both boot logics]	365	365	362	365
35	bjltotal [Needed for both boot logics]	365	365	362	365
36	plug small [Need for logic 0 only]	0	0	0	0
37	plug large [Need for logic 0 only]	0	0	0	0
38					
39	boots [Needed for both boot logics]	365	365	362	365
40	bootl [Needed for both boot logics]	365	365	362	365
41					
42	boots bottom [Needed for both boot logics]	24.1	22.5	23	20.7
43	bootl bottom [Needed for both boot logics]	24.1	22.5	23	20.7
44					
45	extreme bore [Needed for logic 1 only]	45	44.5	43.7	43.3
46					
47	septum length exp [Need for logic 0 only]				
48	septum length calc - do not imput value	0	0	0	0
49	septum length - do not imput value	0	0	0	0
50					
51	sbore dia sep* [Needed for both boot logics]	19.7	20	19	19.9
52	lbore dia sep* [Needed for both boot logics]	20	19.8	19.1	20
53	sep width exp [Need for logic 0 only]				
54	sep width calc - do not imput value	5.3	4.7	5.6	3.4
55	sep width - do not imput value	5.3	4.7	5.6	3.4
56					
57	bj g	306	306	305	310
58	bj f1	115	107	107	108
59					
60					
61					
62					
63					
64	IV. Tone Hole Diameters				
65	f2	5.5	4.3	5.5	5.9
66	e	7.9	7	6.4	7.3
67	d	6.2	6.1	5.3	6.3
68					
69	c	7	7	6	7.1
70	b	7	7.5	7.2	7.2
71	a	9.8	9.7	9.2	9.8
72	g	10.2	10.5	10.8	10.7
73	f1	9.9	12.4	11.2	11.5
74					
75	e1	15.4	17	15.7	15.5
76	d1	17.6	17.6	16.7	17.7
77	c1	15	15.5	14.4	15.4
78					
79					
80					
81					
82					
83	V. Tone Hole Depths				
84	f2	22.4	27	29.5	27.2
85	e	27.4	27.8	30.6	28.7
86	d	31.2	32	34	32.6
87					
88	c	21.4	18.4	20.7	20.5
89	b	22.8	20.2	20.3	21.5
90	a	28.2	24.1	22	22.5
91	g	19.5	15.7	15	16.5
92	f1	23	19.5	20.5	20

	A	B	C	D	E
93					
94	e1	7	5.2	5.7	5.7
95	d1	7	5.6	5.4	5.2
96	c1	6.1	5.2	5.4	5
97					
98					
99					
100					
101					
102	VI. Long Joint				
103	lg_length	612	612	613	610
104	lg_tenon_bot	39.5	38.7	25.2	36.4
105	lj_bot_bore	24.5	25.6	24	24.2
106	lj_top_bore	34.7	34.3	34.7	34.5
107	lg_tenon_top	31.4	39.4	40.1	38.4
108	e1 distance	50	45	48	48
109	d1 distance	263	260	258	259
110	c1 distance	547	547	543	544
111					
112					
113					
114					
115					
116	VII. Bore diameters at Tone Holes				
117	f2	12.4	12.4	11.7	13.8
118	e	13.6	13.4	12.9	14
119	d	14.3	14	13.5	14.2
120					
121	c	17	17.1	16.7	16.2
122	b	17.3	17.8	17.2	17
123	a	19	18.7	18.2	19
124	g	20.6	20	20	20.1
125	f1	23.4	22.6	22.5	23.2
126					
127	e1	24.6	26.1	25.3	25.6
128	d1	28.1	30	29.1	29.4
129	c1	33.1	33.4	33.2	33.3
130					
131					
132					
133					
134					
135	VIII. Bell				
136	bell logic	0	0	0	0
137	bell_length (0, 1, 2)	336	336	340	336
138	bell_bot_bore (0, 1, 2)	34	34	34	34.5
139	bell_top_bore 0, (1, 0, 2)	36.8	35.5	36.5	37.5
140	bell_center_bore (only for logic 2)				
141	bell_wall (only for logic 2)				
142	bell_bot_bore_expansion (only for logic 2)				
143	Outside diameter of wood at expansion				
144	bell_tenon (0, 1, 0, 2)	37.7	41.8	41.5	38.5
145	bell_expansion_length (only for logic 2)				
146	bellfg	72.2	65.6	69.4	74.9
147					
148					
149	IX. PITCH				
150	pitch	440	440	440	440
151	freq_init	380	380	380	380
152	Delta frequency	3	3	3	3
153	Number of frequencies	18	18	18	18
154	Frequency adjust	1.05	1.05	1.05	1.05
155	X. Title				
156	title				
157					
158					
159					
160	XI. Bore Diameter Locations				
161		23	20	21	20
162	Bell Bore; Heckel1-Murry: Almost cylindrical	9.8	9.5	8.8	10.5
163	34.0mm dia. at socket	445	420	398	0
164	34.5mm rod 135mm from top of bell	363	365	345	395
165	35.0mm rod 115mm from top of bell	313	320	270	375
166	35.5mm rod 80mm from top of bell	247	243	205	320
167	36.0mm rod 65mm from top of bell	190	168	135	210
168	36.8mm dia. at bell end	144	120	68	125
169		80	60	0	0
170		55	0	65	120
171		185	160	220	195
172		280	320	0	280
173		346	312	310	345
174		290	260	255	285
175		238	180	175	225
176		170	100	92	142
177		75	0	40	0
178		528	0	575	587
179		465	566	513	545
180		403	485	455	470
181		348	435	400	420
182		285	388	357	365
183		240	330	295	310
184		175	275	238	240
185		125	230	183	195