

Dondeine-C-Cottet1-Rapoport-Wg1-WOB-DNM

	A	B	C	D	E	F	G
1	I. Bocal		Original bocal, Dondeine-C-Cottet NO				
2	dia reed end		inside diameter of reed end of bocal				
3	bocal string length (0, 1)		length of bocal inserted into receiver				
4	metal bocal length top (0, 1)		meas. along top of bocal				
5	metal bocal length bot (0, 1)		meas. along bottom of bocal				
6	dia wj end		inside diameter of bocal				
7							
8	bocal logic	2	if bocal logic = 0 => bocal is choke; if bocal logic = 1 =>choke in wing joint calc; if bocal logic = 2 => no bocal				
9							
10							
11							
12							
13	II. Wing Joint Lengths		bocal receiver: Dondeine-C-Cottet no receiver				
14	choke bore dia.	9.8	logic 1; bore diameter of choke; logic 0; either diameter bocal bottom or beginning of bore at bottom or receiver				
15	receiver length (1, 0) (formally choke length)	74	logic 1; length of choke from top of wing joint; logic 0; length of receiver (same as string length)				
16	wing joint length	575	total wing joint length, including tenon and socket				
17	tenon length	42.9	tenon length				
18							
19	wj f2	255	dist top of wing to where tone hole enters bore [not at the center of the tone hole]				
20	wj e	338					
21	wj d	390					
22							
23	Bore dia. Bottom of wing joint	16.7	Need to Average, usually oval; Dondeine-C-Cottet yes				
24	Bore dia. top of boot joint small side	16.9	Dondeine-C-Cottet OOR				
25	Bore dia. top of boot joint large side	25.6					
26							
27	III. Boot Lengths		Dondeine-C-Cottet No Two whole design; normal rounded cork plus				
28	bj logic	1	logic=> if bj logic = 0 => plug removed; if bj logic = 1 => plug cannot be removed				
29	bj c	106	dist from top of boot to where topmost tone hole enter bore [not at center of tone hole]				
30	bj b	164					
31	bj a	209					
32							
33	bjstotal [Needed for both boot logics]	470	total length of boot, include socket, along the small bore side				
34	bjltotal [Needed for both boot logics]	470	total length of boot, include socket, along large bore side				
35	plug small [Need for logic 0 only]	0	plug thickness, large bore side				
36	plug large [Need for logic 0 only]	0	plug thickness, small bore side				
37							
38	boots [Needed for both boot logics]	421	hook length along s bore => bjs-septum length = boot - septum <= calc the septum				
39	bootl [Needed for both boot logics]	421	hook length along l bore => bjl-septum length = boot - septum <= calc the septum				
40							
41	boots bottom [Needed for both boot logics]	24	use hook, dist of bore [dist on stick plus 7mm, diff between hook and bot of stick]				
42	bootl bottom [Needed for both boot logics]	24	use hook, dist of bore [same as boots bot except tenon depth will be different]				
43							
44	extreme bore [Needed for logic 1 only]	44.5	Outside dia of plug [measured] = small bore dia + large bore dia + the septum width				
45							
46	septum length exp [Need for logic 0 only]	44	dist. from very bottom of boot to septum [point between the large and small bore]				
47	septum length calc - do not imput value	49	dist. From very bottom of boot to septum [bjl - bootl]	do not imput value			
48	septum length - do not imput value	49	if bj logic = 0 => septum = septum exp; if bj logic = 1 => septum = septum c	do not imput value			
49							
50	sbore dia sep* [Needed for both boot logics]	18.2	septum small bore dia [assume = lbore dia sep]				
51	lbore dia sep* [Needed for both boot logics]	19.8	septum large bore dia [assume = sbore dia sep] [mesure if cork can be removed; for Logic 0]				
52	sep width exp [Need for logic 0 only]	0	septum width; direct measurement if remove plug				
53	sep width calc - do not imput value	6.5	septum width; calc. => extreme bore - sbore - lbore	do not imput value			
54	sep width - do not imput value	6.5	if bj logic = 0 => sep width = sep width exp; if bj logic = 1 => sep width = sep	do not imput value			
55							
56	bj g	365	dist from top of boot (socket) to where G hole enters bore [not at cent of tone hole]				
57	bj f1	148	dist from top of boot (socket) to where F1 hole enters bore [not at cent of tone hole]				
58							
59							
60							
61							
62							
63	IV. Tone Hole Diameters						
64	f2	5.1	Dondeine-C-Cottet Plastic in tone hole				
65	e	6.9					
66	d	6.4					
67							
68	c	7.2	Dondeine-C-Cottet Plastic in tone hole				
69	b	7.2	Dondeine-C-Cottet Plastic in tone hole				
70	a	6.3	Dondeine-C-Cottet Plastic in tone hole				
71	g	9.8					
72	f1	9	Dondeine-C-Cottet Plastic in tone hole				
73							
74	e1	12.4	e1 tone hole dia, on long joint [need to average NS and EW dias, NS usually greater]				
75	d1	8.8	d1 tone hole dia, on long joint [need to average NS and EW dias, NS usually greater]				
76	c1	13.7	Dondeine-C-Cottet 13.2 x 14.3; c1 tone hole dia, on long joint [need to average NS and EW dias]				
77							
78							
79							
80							
81							
82	V. Tone Hole Depths						
83	f2	38.6					
84	e	33.3					
85	d	37.3					
86							
87	c	26.5					
88	b	23.1					
89	a	22					
90	g	16.8	meas along bot tone hole wall [north wall, toward reed,tone hole usually at angle]				
91	f1	17.1	meas along east side tone hole wall [north wall, toward reed,t hole usually at angle]				
92							
93	e1	6.1	e1 tone hole depth;meas east/west with deapth gauge [at center, or shortest dist]				

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	A	B	C	D	E	F	G
94	d1	7.2	d1 tone hole depth; meas east/west with deapth gauge [at center, or shortest dist]				
95	c1	6.2	c1 tone hole depth; meas east/west with deapth gauge [at center, or shortest dist]				
96							
97							
98							
99							
100							
101	VI. Long Joint		Dondeine-C-Cottet not a table along long joint				
102	lg_length	636	total length of long joint; yes 600 mm				
103	lg_tenon_bot	46.8	length bottom tenon on long joint [tenon going into boot joint]				
104	lj_bot_bore	23.2	long joint bottom tenon bore diameter [tenon going into boot joint]				
105	lj_top_bore	33.1	long joint top tenon bore diameter [tenon going into bell]				
106	lg_tenon_top	39.8	length top tenon on long joint [tenon going into bell]				
107	e1_distance	54	dist long joint tenon to e1 [from bot of tenon to where tone hole enters bore]				
108	d1_distance	274	dist long joint tenon to d1 [from bot of tenon to where tone hole enters bore]				
109	c1_distance	516	dist long joint tenon to c1 [from bot of tenon to where tone hole enters bore]				
110							
111							
112							
113							
114							
115	VII. Bore diameters at Tone Holes						
116	f2	12.1					
117	e	13.1					
118	d	13.7					
119							
120	c	16.6					
121	b	17.1					
122	a	17.7					
123	g	20.2	Dondeine-C-Cottet OOR				
124	f1	23.8					
125							
126	e1	24	e1 tone hole bore diameter on long joint				
127	d1	27.8	d1 tone hole bore diameter on long joint				
128	c1	31.3	c1 tone hole bore diameter on long joint				
129							
130							
131							
132							
133							
134	VIII. Bell		Dondeine-C-Cottet no tone hole in the bell				
135	bell_logic	0	If bell_logic = 0 => normal conical bore; if bell_logic = 1 => inverted conical bore				
136	bell_length (0, 1, 2)	345	total length of bell [lines 141 + 144 = line 136]				
137	bell_bot_bore (0, 1, 2)	33.2	dia bore at the bottom of bell [end with socket]				
138	bell_top_bore 0, (1, 0, 2)	33.5	dia bore at the top of bell [where low Bb exits]				
139	bell_center_bore (only for logic 2)		dia bore at max center of expansion				
140	bell_wall (only for logic 2)		bell wall thickness, Just for David				
141	bell_bot_bore_expansion (only for logic 2)		dist of bottom to maxium of expansion [including bell socket length, if bell logic=0 =>100]				
142	Outside diameter of wood at expansion		Just for David				
143	bell_tenon (0, 1, 0, 2)	40.6	bell socket length				
144	bell_expansion_length (only for logic 2)		distance of maxium expansion to top of bell [where Bb exits]				
145							
146							
147							
148	IX. PITCH						
149	pitch	392	input the historical pitch of the bassoon, must input value, best guess				
150	freq_init	380	Initial frequency range variable				
151	Delta frequency	2	frequency increment parameter				
152	Number of frequencies	60	number of frequencies to scan for min chi sq				
153	Frequency adjust	1.05	frequency adjustment parameter				
154	X. Title						
155	title		Bassoon Calculation: Dondeine-C-Cottet1-Rapoport-Wg1-WOB-DNM				
156							
157			Notes on long joint bore: Dondeine-C-Cottet out of round in places				
158			Notes on boot joint bore: Dondeine-C-Cottet small side very out of round				
159	XI. Bore Diameter Locations		Notes on wing joint bore: Dondeine-C-Cottet In good shape				
160		22	Number of diameters				
161		9.8	Initial bore diameter [do not include in line 160 counting]				
162		452	dist1; measured from the bottom of the wing joint- 10mm				1
163		408	dist2; measured from the bottom of the wing joint- 11mm				1
164		345	dist3; measured from the bottom of the wing joint- 12mm				1
165		242	dist4; measured from the bottom of the wing joint- 13mm				1
166		147	dist5; measured from the bottom of the wing joint- 14mm; OOR				1
167		78	dist6; measured from the bottom of the wing joint- 15mm	Bottom wing jt	16.7		1
168		16	dist7; measured from the bottom of the wing joint- 16mm	top boot small	16.9		1
169		166	dist8; measured from the top of the bootjoint - small bore side- 17mm	top boot large	25.6		2
170		275	dist9; measured from the top of the bootjoint - small bore side- 18mm				2
171		0	dist10; measured from the top of the bootjoint - large bore side- 19mm	sbore dia sep	18.2		3
172		390	dist11; measured from the top of the bootjoint - large bore side- 20mm	lbore dia sep	19.8		3
173		292	dist12; measured from the top of the bootjoint - large bore side- 21mm	Hook Length	421		3
174		235	dist13; measured from the top of the bootjoint - large bore side- 22mm				3
175		187	dist14; measured from the top of the bootjoint - large bore side- 23mm				3
176		575	dist15; measured from the top of the long joint- 24mm	lj_bot_bore	23.2		4
177		519	dist16; measured from the top of the long joint- 25mm				4
178		484	dist17; measured from the top of the long joint- 26mm				4
179		412	dist18; measured from the top of the long joint- 27mm				4
180		344	dist19; measured from the top of the long joint- 28mm				4
181		266	dist20; measured from the top of the long joint- 29mm				4
182		192	dist21; measured from the top of the long joint- 30mm				4
183		127	dist22; measured from the top of the long joint- 31mm				4
184		82	dist23; measured from the top of the long joint- 32mm	lj_top_bore	33.1		4