_					_			
H	A I. Bocal	B Wing 1	C Wing 2	D Original bocal; Port3 no	Е	F	G	Н
2	dia reed end	4.2	4.2	inside diameter of reed end of bocal				
3	bocal string length (0, 1)	32	32	length of bocal inserted into receiver				
4	metal bocal length top (0, 1)	337	337	meas, along top of bocal				
5 6	metal bocal length bot (0, 1) dia wj end	315 9	315 9	meas. along bottom of bocal inside diameter of bocal				
7								
8	bocal logic	0	0	if bocal logic =0=>bocal is choke; if bocal logic = $1 =$ >choke in wing joint calc;	if bocal logic =2	=>no boo	cal	
9 10								
11								
12								
	II. Wing Joint Lengths; Short Wing			bocal receiver: Port3 yes; could have been formed from bocal over time, istr. p				
14 15	choke bore dia. receiver length (1, 0) (formally choke length)	9.2 45	9.3 44	logic 1; bore diameter of choke; logic 0; diameter bocal bottom or beginning o logic 1; length of choke from top of wing joint; logic 0; length of receiver (same			r	
	wing joint length	490	510	total wing joint length, including tenon and socket	as string length			
17	tenon length	53.6	54.3	tenon length				
18								
	wj f2	196	212	dist top of wing to where tone hole enters bore [not at the center of the tone hole	ole]			
	wj e wj d	278 319	290 328					
22	W) U	317	320					
23	Bore dia. Bottom of wing joint	15.8	15.7	Need to Average, usally oval; Port3 yes				
24	Bore dia, top of boot joint small side	15.9	15.9	This is an average and helew at 25mm have a second to the				
25 26	Bore dia. top of boot joint large side	23.1	23.1	This is an average, see below at 25mm bore measurement, bore is oblong				
	III. Boot Lengths							
28	bj logic	1	1	logic = > if bj logic = 0 = > plug removed; if bj logic = 1 = > plug cannot be rem				
29	bj c	97	97	dist from top of boot to where topmost tone hole enter bore [not at center of to				
	bj b	154 196	154 196					
31 32	bj a	190	190					
33	bjstotal [Needed for both boot logics]	432	432	total length of boot, include socket, along the small bore side				
34	bjltotal [Needed for both boot logics]	432	432	total length of boot, include socket, along large bore side				
35	plug small [Need for logic 0 only]	0	0	plug thickness, large bore side				
36 37	plug large [Need for logic 0 only]	0	0	plug thickness, small bore side				
38	boots [Needed for both boot logics]	391	391	hook length along s bore => bjs-septum length = boot - septum <= calc the se	eptum			
39	bootl [Needed for both boot logics]	391	391	hook length along I bore => bjl-septum length = boot - septum <= calc the se				
40	hoote bottom [Needed for bath hand]	17 -	17.5	use healt diet of here [diet on stielt also 7 mm diff habition has been and have a	ck] 7 : 10 5 : 1	· E		
41 42	boots bottom [Needed for both boot logics] bootl bottom [Needed for both boot logics]	17.5 17.5	17.5	use hook, dist of bore [dist on stick plus 7mm, diff between hook and bot of sti- use hook, dist of bore [same as boots bot except tenon depth will be different]	ukj / + 10.5 =1/			
43	Social Socionia [Needed for Both Book logics]	17.3	17.3	and money and or bore painte as boots but except tenon depth will be different.				
44	extreme bore [Needed for logic 1 only]	40.9	40.9	Outside dia of plug [measured] = Port3 small bore dia + large bore dia + the s	septum width, co	uld not rer	move	сар
45	contium length our [No - 1 for look 0 - 1]			disk from your bottom of book to continue for int between the large				
46 47	septum length exp [Need for logic 0 only] septum length calc - do not imput value	0 41	0 41	dist. from very bottom of boot to septum [point between the large and small bodist. From very bottom of boot to spetum [bjl - bootl]	do not imput va	lue		
48	septum length - do not imput value	41	41	if bj logic = 0 => septum = septum exp; if bj logic = 1 => septum = septum c				
49					,,,,,			
50	sbore dia sep* [Needed for both boot logics]	18.4	18.4	septum small bore dia [assume = lbore dia sep]	d. for ! aa:- 03			
51 52	Ibore dia sep* [Needed for both boot logics] sep width exp [Need for logic 0 only]	18.6 0	18.6 0	septum large bore dia [assume = sbore dia sep] [mesure if cork can be remove septum width; direct measurement if remove plug	eu, IUI LOGIC U]			
53	sep width calc - do not imput value	3.9	3.9	septum width; calc. => extreme bore - sbore - lbore	do not imput va	lue		
54	sep width - do not imput value	3.9	3.9	if bj logic = 0 => sep width = sep width exp; if bj logic = 1 => sep width = sep				
55	bj g	334	334	dist from top of boot (socket) to where G hole enters bore [not at cent of tone	hole]			
57	bj f1	154	154	dist from top of boot (socket) to where G hole enters bore [not at cent of tone dist from top of boot (socket) to where F1 hole enters bore [not at cent of tone dist from top of boot (socket) to where F1 hole enters bore [not at cent of tone dist from top of boot (socket) to where F1 hole enters bore [not at cent of tone dist from top of boot (socket) to where F1 hole enters bore [not at cent of tone dist from top of boot (socket) to where F1 hole enters bore [not at cent of tone dist from top of boot (socket) to where F1 hole enters bore [not at cent of tone dist from top of boot (socket) to where F1 hole enters bore [not at cent of tone dist from top of boot (socket)]				
58								
59								
60 61								
62								
63	IV. Tone Hole Diameters							
64	f2	5.5 5.7	5.3 5.9					
65 66	d	5.7	5.9					
67	<u></u>	,						
68	С	7.2	7.2					
69	b	6.8	6.8					
70 71	a a	5.9 8.3	5.9 8.3					
72	f1	8.6	8.6					
73								
74 75	e1	11.7	11.7	e1 tone hole dia, on long joint [need to average NS and EW dias, NS usually gr				
	d1 c1	8.6 13.8	8.6 13.8	d1 tone hole dia, on long joint [need to average NS and EW dias, NS usually gr c1 tone hole dia, on long joint [need to average NS and EW dias, NS usually gr				
77		25.5		and the diagram of th				
78								
79 80								
80								
82	V. Tone Hole Depths							
83	f2	33.5	32.4					
84 85	e d	34.1 32.4	34.7 30.4					
86	u	32.4	30.4					
87	c	23	23					
88	b	28.8	28.8					
89 90	a	28.3 18.7	28.3 18.7	meas along bot tone hole wall [north wall, toward reed,tone hole usually at and	امار			
91	g f1	24	24	meas along bot tone note wall [north wall, toward reed,tone note usually at any meas along east side tone hole wall [north wall, toward reed,t hole usually at a				
92								
93	e1	9.6	9.6	e1 tone hole depth; meas east/west with deapth gauge [at center, or shortest d				
	d1 c1	10.1 10.3	10.1 10.3	d1 tone hole depth; meas east/west with deapth gauge [at center, or shortest c1 tone hole depth; meas east/west with deapth gauge [at center, or shortest or short				
96	C1	10.3	10.3	ica cone note deput, meas easy west with deapth gauge [at center, or shortest (uiot]			
				•				

	A	В	С	D	E	F	G	Н
97	A	Б	C	D	Е	F	G	
98								
99								
100	VI. Long Joint			Port3 There is a table along long joint				
	Ig_length	615	615	total length of long joint				
103	lg_tenon_bot	52.5	52.5	length bottom tenon on long joint [tenon going into boot joint]				
104 105	lj_bot_bore lj_top_bore	24.8 31.7	24.8 31.7	long joint bottom tenon bore diameter [tenon going into boot joint] long joint top tenon bore diameter [tenon going into bell]				
106		38.4	38.4	length top tenon on long joint [tenon going into bell]				
	e1 distance	60	60	dist long joint tenon to e1 [from bot of tenon to where tone hole enters bore]				
	d1 distance	259	259	dist long joint tenon to d1 [from bot of tenon to where tone hole enters bore]				
109 110	c1 distance	488	488	dist long joint tenon to c1 [from bot of tenon to where tone hole enters bore]				
111								
112								
113 114								
	VII. Bore diameters at Tone Holes							
116	f2	11.4	11.4					
117	e	12.7	12.6					
118 119	<u>a</u>	13.2	13.1					
120	с	15.9	15.9					
121	b	16.9	16.9					
122 123	a a	17.5 19.1	17.5 19.1					
124	f1	20.9	20.9					
125								
126 127	e1 d1	25.2 26.8	25.2 26.8	e1 tone hole bore diameter on long joint d1 tone hole bore diameter on long joint			\vdash	
128	c1	28.7	28.7	c1 tone hole bore diameter on long joint				
129								
130 131								
132								
133								
	VIII. Bell		-	Port3 There is not a tone hole in the bell	6 h - II I : - 2 ·	h - II	-1	
135	bell logic bell_length (0, 1, 2)	1 334	1 334	If bell_logic=0=>normal conical bore; if bell_logic =1=>inverted concial bore; it otal length of bell [lines 141 + 144 = line 136]	r bell_logic=2=>	bell expan	ision	
137	bell_bot_bore (0, 1, 2)	32.9	32.9	dia bore at the bottom of bell [end with socket]				
138	bell_top_bore 0, (1, 0, 2)	30.2	30.2	dia bore at the top of bell [where low Bb exits]				
	bell_center_bore (only for logic 2) bell_wall (only for logic 2)			dia bore at max center of expansion bell wall thickness, Just for David				
	bell_bot_bore_expansion (only for logic 2)			dist of bottom to maxium of expansion [including bell socket length,if bell logic	=0 =>1001			
142	Outside diameter of wood at expansion			Just for David				
143	bell_tenon (0, 1, 0, 2)	38.1	38.1	bell socket length				
144	bell_expansion_length (only for logic 2) belflg	34.5	34.5	distance of maxium expansion to top of bell [where Bb exits]				
146								-
147								
	IX. PITCH pitch	430	430	input the historical pitch of the bassoon, must input value, best guess				
	freq_init	380	380	Initial frequency range variable				
	Delta frequency	2	2	frequency increment parameter				
152 153	Number of frequencies Frequency adjust	60 1.05	60 1.05	number of frequencies to scan for min chi sq frequency adjustment parameter				
	X. Title	1.03	1.03	rrequency adjustment parameter				
155	title			Bassoon Calculation: Porthaux3-O-MET1999.307-Wg1-WB-DNM				
156 157	XI. Temperament # (chron order) Input Temperament #	0	0	Notes on long joint bore: Port3 out of round in places				
158	inpac remperament #	U	U	Notes on long joint bore: Port3 out of round in places Notes on boot joint bore: Port3 small side very out of round				
	XI. Bore Diameter Locations			Notes on wing join bores: Port3 normal				
160 161		9.2	9.2	Number of diameters Initial bore diameter [do not include in line 160 counting]				
162		358	358	dist1; measured from the bottom of the wing joint- 10mm				1
163		325	325	dist2; measured from the bottom of the wing joint- 11mm				1
164 165		256 188	256 188	dist3; measured from the bottom of the wing joint- 12mm dist4; measured from the bottom of the wing joint- 13mm				1
166		188	188	dist4; measured from the bottom of the wing joint- 13mm dist5; measured from the bottom of the wing joint- 14mm				1
167		25	25	dist6; measured from the bottom of the wing joint- 15mm	Bottom wing jt	15.8		1
168		96	96	dist7; measured from the top of the bootjoint - small bore side- 16mm	top boot small	15.9		2
169 170		162 233	162 233	dist8; measured from the top of the bootjoint - small bore side- 17mm dist9; measured from the top of the bootjoint - small bore side- 18mm	top boot large	23.1		2
171		365	365	dist10; measured from the top of the bootjoint - large bore side- 19mm	sbore dia sep	18.4		3
172		199	199	dist11; measured from the top of the bootjoint - large bore side- 20mm	Ibore dia sep	18.6		3
173 174		150 108	150 108	dist12; measured from the top of the bootjoint - large bore side- 21mm dist13; measured from the top of the bootjoint - large bore side- 22mm	Hook Length	391		3
175		65	65	dist14; measured from the top of the bootjoint - large bore side- 22mm				3
176		0	0	dist15; measured from the top of the boot joint- large bore side- 24mm	lj_bot_bore	24.8		3
177 178		580 386	580 386	dist16; measured from the top of the long joint- 25mm dist17; measured from the top of the long joint- 26mm				4
179		340	340	dist18; measured from the top of the long joint- 27mm				4
180		308	308	dist19; measured from the top of the long joint- 28mm				4
181		103	103	dist20; measured from the top of the long joint- 29mm				4
182 183		74 40	74 40	dist21; measured from the top of the long joint- 30mm dist22; measured from the top of the long joint- 31mm				4
184		0	0		li top bore	31.7		4