	A	В	c	D	F	F	G	н	ī	, 1
1	I. Bocal	В	Original bocal; Porthaux11 no	D	_	Ė	G	- 11	1	Porthaux9
2	dia reed end		inside diameter of reed end of bocal							
3	bocal string length (0, 1)		length of bocal inserted into receiver							
5	metal bocal length top (0, 1) metal bocal length bot (0, 1)		meas. along top of bocal meas. along bottom of bocal		L	L	L			
6	dia wj end		inside diameter of bocal							
7	hocal logic	2	if hocal logic = 0 = 5 hocal is choke; if hocal logic = 1 = 5 choke in min = 2-1-5 = 1	c: if boost to	ic - 2		hocal			2
9	bocal logic		if bocal logic = 0 => bocal is choke; if bocal logic = 1 =>choke in wing joint cal	c; ir bocai iog	ic = 2	= > no	Docai			
10										
11										
12 13	II. Wing Joint Lengths		bocal receiver: Porthaux11 no							
14	choke bore dia.	9.7	logic 1; bore diameter of choke; logic 0; either diameter bocal bottom or beginn	ning of bore a	t botto	m or	receiver			9.3
15	receiver length (1, 0) (formally choke length)	62	logic 1; length of choke from top of wing joint; logic 0; length of receiver (same							50
16 17	wing joint length tenon length	507 44.9	Porthaux11 wing tenone has been replace; total wing joint length, including ten tenon length	ion and socke	et .					512 42.5
18	teriori lerigeri	11.15	tenon rengar							12.13
19	wj f2	211	dist top of wing to where tone hole enters bore [not at the center of the tone ho	ole]						225
20 21	wj e wj d	286 326								305 341
22	W) G	520								3,1
23	Bore dia. Bottom of wing joint	13.6	Porthaux11 vrfd 13.4 x 13.8 Need to Average							15
24 25	Bore dia. top of boot joint small side Bore dia. top of boot joint large side	15.5 23.3	Porthaux11 vrfd gap Porthaux11 OOR 23.1 x 23.4, vrfd small							15.5 24.9
26	Bore did top or book joint large side	20.0	Totalaakii ook Esii x Esii yi ila shah							2.113
27	III. Boot Lengths									
28 29	bj logic bj c	1 87	logic = > if bj logic = 0 = > plug removed; if bj logic = 1 = > plug cannot be removed is from top of boot to where topmost tone hole enter bore [not at center of to		1	+	-			91
30	bj b	156		c morej		L				155
31	bj a	209								193
32	bjstotal [Needed for both boot logics]	430	Porthaux11, plug fell out, used logic 1 total length of boot, include socket, along the small bore side, meas. With boot	can removed						432
34	bjltotal [Needed for both boot logics]	430	total length of boot, include socket, along the shall bore side, fileds. With boot total length of boot, include socket, along large bore side	cap removed						432
35	plug small [Need for logic 0 only]	0	plug thickness, large bore side							0
36 37	plug large [Need for logic 0 only]	0	plug thickness, small bore side			-				0
38	boots [Needed for both boot logics]	392	hook length along s bore => bjs-septum length = boot - septum <= calc the se	eptum	L	L	L			394
39	bootl [Needed for both boot logics]	392	hook length along I bore => bjl-septum length = boot - septum <= calc the sep							394
40 41	boots bottom [Needed for both boot logics]	22	use hook, dist of bore [dist on stick plus 7mm, diff between hook and bot of stic	 -k1 15 ± 7 = 1	72					17
42	boots bottom [Needed for both boot logics]	22	use hook, dist of bore [aist on stick plus 7mm, diff between hook and bot of stick use hook, dist of bore [same as boots bot except tenon depth will be different]	ong 10 ∓ / =2	Ĺ	L	L			17
43										
44	extreme bore [Needed for logic 1 only]	42.1	Outside dia of plug [measured] = small bore dia + large bore dia + the septum	width		-				39
45 46	septum length exp [Need for logic 0 only]	39	dist. from very bottom of boot to septum [point between the large and small bo	ore]		 				0
47	septum length calc - do not imput value	38	dist. From very bottom of boot to spetum [bjl - bootl]	do not imput	t value					38
48	septum length - do not imput value	38	if bj logic = 0 => septum = septum exp; if bj logic = 1 => septum = septum c	do not imput	t value					38
49 50	sbore dia sep* [Needed for both boot logics]	18.7	septum small bore dia [assume = lbore dia sep]							18.6
51	Ibore dia sep* [Needed for both boot logics]	18.7	septum large bore dia [assume = sbore dia sep] [mesure if cork can be remove	ed; for Logic (0]					19
52	sep width exp [Need for logic 0 only]	5.2	septum width; direct measurement if remove plug		<u> </u>					0
53 54	sep width calc - do not imput value sep width - do not imput value	4.7	septum width; calc. => extreme bore - sbore - lbore if bj logic = 0 => sep width = sep width exp; if bj logic = 1 => sep width = sep	do not imput						1.4
55	Sep water as not impac value		in by logic 0 / bep madi bep madi exp/ ii by logic 1 / bep madi bep	do not impai	Value					
56	bj g	337	dist from top of boot (socket) to where G hole enters bore [not at cent of tone h							335
57 58	bj f1	145	dist from top of boot (socket) to where F1 hole enters bore [not at cent of tone	noiej						139
59										
60										
61 62										-
63	IV. Tone Hole Diameters									
64	f2	6								5.1
65 66	d d	5.9 6.3								6.1 5.4
67										
68 69	c b	7.5 7.3			-	-				7.7
70	a	6.5								5.7
71	g	8.7								9.4
72	f1	9			-	-				9.3
74	e1	9.4	e1 tone hole dia, on long joint [need to average NS and EW dias, NS usually gre	eater]						10.4
75	d1	8.1	d1 tone hole dia, on long joint [need to average NS and EW dias, NS usually gre	eater]	<u> </u>		Ĺ			8
76 77	c1	14.4	Porthaux11 Oblong 14.2 x 14.6; c1 tone hole dia, on long joint [need to average	e NS and EW	dias, N	IS usu	ally grea	ater]		12.8
78					L	L	L			
79										
80 81										
82	V. Tone Hole Depths				L	L	L			
83	f2	32								29
84 85	e d	31.2 34.4	Porthaux11 vrfd, extreme angle, tone hole not drilled totally into center of bore							33 34
86			To a dealer vira, exacine angle, tone not utilied totally into center or bore		L	L	L			54
87	c	26.5								23.8
88 89	b a	23 26	Porthaux11 vrfd, extreme downward angle							27 23.6
90	g	17.5	meas along bot tone hole wall [north wall, toward reed,tone hole usually at ang	le]	L	L	L			14.2
91	f1	20	meas along east side tone hole wall [north wall, toward reed,t hole usually at a							24
92 93	a1	8	a1 tone hole denth meas east/wast with deanth gauge fat center, or shortest d	liet1		-	-			8
	d1	8	e1 tone hole depth; meas east/west with deapth gauge [at center, or shortest ddl tone hole depth; meas east/west with deapth gauge [at center, or shortest of the depth gauge [at center, or shortest							8 5.5
95	c1	8	c1 tone hole depth; meas east/west with deapth gauge [at center, or shortest of							7
96			Porthaux11, vrfd all long joint tone hole depths the same		_					
97 98										
99										
100	WT 1 T-i-t		Double-weld a believe land 1.1.1							
101 102	VI. Long Joint lg_length	563	Porthaux11 a table along long joint Porthaux11 vrfd short; total length of long joint		—	1				581
103	lg_tenon_bot	46	length bottom tenon on long joint [tenon going into boot joint]							46.5
104	lj_bot_bore	23.6	long joint bottom tenon bore diameter [tenon going into boot joint]			F				24.8
105 106	lj_top_bore lg_tenon_top	32.5 38.6	long joint top tenon bore diameter [tenon going into bell] length top tenon on long joint [tenon going into bell]			\vdash				32 34.5
100	on control top	50.0								57.5

A	В	r I n	E	F	G H	1 1	
107 e1 distance	48	Porthaux11 vrfd short; dist long joint tenon to e1 [from bot of tenon to where tone hole en	ters bore	el .	G II	•	50
108 d1 distance	247	Porthaux11 vrfd short; dist long joint tenon to d1 [from bot of tenon to where tone hole en					251
109 c1 distance	454	Porthaux11 vrfd short; dist long joint tenon to c1 [from bot of tenon to where tone hole en	ters bore	-]			467
110							
111 112			-	+-	 	+	
113				+			
114				1			
115 VII. Bore diameters at Tone Holes							
116 f2	12						12.3
117 e	13	Porthaux11 vrfd 13.0					13.3
118 d 119	13.5		+	+		+	13.8
120 c	15.5			+		+	16.2
121 b	16.1						17
122 a	17	Porthaux11 vrfd 17.0					17.4
123 g	19.6						19.1
124 f1 125	22.1			_			23.2
125 126 e1	24.2	e1 tone hole bore diameter on long joint	+	+			25.4
127 d1	27.3	d1 tone hole bore diameter on long joint		1			28.9
128 c1	31.2	c1 tone hole bore diameter on long joint					30.5
129							
130				-			
131 132	-		-	1		_	
133				+		+	i
134 VIII. Bell No Bell							
135 bell logic		If bell_logic = 0 => normal conical bore; if bell_logic = 1 => inverted concial bore; if bell_	logic = 2	=> t	bell expansion		1
136 bell_length (0, 1, 2)		total length of bell [lines 141 + 144 = line 136]					315
137 bell_bot_bore (0, 1, 2)		dia bore at the bottom of bell [end with socket]	+	+		+	32.1
138 bell_top_bore 0, (1, 0, 2) 139 bell_center_bore (only for logic 2)		dia bore at the top of bell [where low Bb exits] dia bore at max center of expansion		+		_	30.6
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)		bell socket length	-				38.2
144 bell_expansion_length (only for logic 2) 145 belflg		distance of maxium expansion to top of bell [where Bb exits]		+			43
146							73
147							
148 IX. PITCH							
149 pitch	430	input the historical pitch of the bassoon, must input value, best guess	-				430
150 freq_init 151 Delta frequency	380 2	Initial frequency range variable frequency increment parameter		+			380 2
152 Number of frequencies	60	number of frequencies to scan for min chi sq					60
153 Frequency adjust	1.05	frequency adjustment parameter					1.05
154 X. Title							
155 title		Bassoon Calculation: Porthaux11-O-BrusMIMIDK0026-Wg1-WOB-DNM	+	+		+	
156			1	1	1	1	
157 158	-	Notes on long joint bore: Porthaux11, normal	+	₩		+	0
159 XI. Bore Diameter Locations		Notes on boot joint bore: Porthaux11, down normal; up good Notes on wing joint bore: Porthaux11, normal	-	+		+	
160	22	Number of diameters		\vdash			19
161 Bell Bore; No Bell	9.7	Initial bore diameter [do not include in line 160 counting]					9.3
162	420	dist1; measured from the bottom of the wing joint- 10mm	4		1		415
163	332 297	dist2; measured from the bottom of the wing joint- 11mm	+	\vdash	1	+	362
165	297	dist3; measured from the bottom of the wing joint- 12mm Porthaux11 OOR; dist4; measured from the bottom of the wing joint- 13mm	-	+	1	+	310 220
166	140	dist5; measured from the bottom of the wing joint- 14mm		1	1		155
167	0	dist6; measured from the bottom of the wing joint- 15mm Bottom w			1		0
168	146	dist7; measured from the top of the bootjoint - small bore side- 16mm; was 10 top boot s			2		80
169	204	dist8; measured from the top of the bootjoint - small bore side- 17mm; was 15 top boot l	rg 23.3	1	2		0
170 171	288 382	dist9; measured from the top of the bootjoint - small bore side- 18mm dist10; measured from the top of the bootjoint - large bore side- 19mm; was 3 sbore dia	er 18.7	,	3	+	215
172	330	dist10; measured from the top of the bootjoint - large bore side- 19mm; was 3 sbore dia dist11; measured from the top of the bootjoint - large bore side- 20mm; yes 21 bore dia side- 20mm; yes 21 bor		,	3		295
173	237	dist12; measured from the top of the bootjoint - large bore side- 21mm; yes 1 Hook Leng			3		275
174	164	dist13; measured from the top of the bootjoint - large bore side- 22mm			3		255
175	80	dist14; measured from the top of the bootjoint - large bore side- 23mm	22.5	-	3	+	190
176 177	534 473	dist15; measured from the top of the long joint- 24mm lj_bot_boi dist16; measured from the top of the long joint- 25mm	23.6	-	4	+	95 555
178	403	dist17; measured from the top of the long joint- 25mm	1	1	4		465
179	335	dist18; measured from the top of the long joint- 27mm			4		390
180	272	dist19; measured from the top of the long joint- 28mm			4		360
181 182	232 185	dist20; measured from the top of the long joint- 29mm	+	+-	4	+	295 155
183	185	dist21; measured from the top of the long joint- 30mm dist22; measured from the top of the long joint- 31mm	+	+	4	+	70
184	51	dist23; measured from the top of the long joint- 32mm lj top boi	32.5	;	4		0
				_	_		