$\overline{}$			-			_	
H	Α	В	C	D	E	F	G
	I. Bocal		Original bocal; DeBruijn1 no				
	dia reed end		inside diameter of reed end of bocal				
	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 ca	lc; if bocal logic = 2	2 => no	boca	ıl
9							
10							
11							
12							
	II. Wing Joint Lengths		bocal receiver: DeBruijn1 yes; but this is a repair, the choke is futher down the	hore from the bras	s inser	+	
	choke bore dia.	11.1	logic 1; bore diameter of choke; logic 0; either diameter bocal bottom or begin				er
15	receiver length (1, 0) (formally choke length)	75	logic 1; length of choke from top of wing joint; logic 0; length of receiver (same		0111 01 1	-	·.
	wing joint length	560	total wing joint length, including tenon and socket	as string iongtri)			
		50.5	tenon length				
18	tenon length	30.3	tenon length				
		245					
	wj f2	245	dist top of wing to where tone hole enters bore [not at the center of the tone ho	oiej			
	wj e	305					
	wj d	350					
22							
23	Bore dia. Bottom of wing joint	17	Need to Average, usally oval; DeBruijn1 no				
24	Bore dia. top of boot joint small side	17.1					
25	Bore dia. top of boot joint large side	25.1					
26						╚	
	III. Boot Lengths						
	bj logic	1	logic=> if bj logic = 0 => plug removed; if bj logic = 1 => plug cannot be rem	oved			
	bj c	79	dist from top of boot to where topmost tone hole enter bore [not at center of to				
	bj b	137					
	bj a	181					
32	-y	101					
	bjstotal [Needed for both boot logics]	442	total length of boot, include socket, along the small bore side				
	biltotal [Needed for both boot logics]	442	total length of boot, include socket, along the small bore side			\vdash	
	plug small [Need for logic 0 only]	0	plug thickness, large bore side			\vdash	
36	plug large [Need for logic 0 only]	0	plug thickness, small bore side				
37		200					
38	boots [Needed for both boot logics]	399	hook length along s bore => bjs-septum length = boot - septum <= calc the se				
39	bootl [Needed for both boot logics]	399	hook length along I bore => bjl-septum length = boot - septum <= calc the se	otum			
40							
41	boots bottom [Needed for both boot logics]	23	use hook, dist of bore [dist on stick plus 7mm, diff between hook and bot of sti	ck] 16 + 7=23			
	bootl bottom [Needed for both boot logics]	23	use hook, dist of bore [same as boots bot except tenon depth will be different]				
43			DeBruijn1, Two round plug design: NO.				
44	extreme bore [Needed for logic 1 only]	45.7	Outside dia of plug [measured] = small bore dia + large bore dia + the septum	n width			
45							
46	septum length exp [Need for logic 0 only]		dist. from very bottom of boot to septum [point between the large and small bo	rel			
47	septum length calc - do not imput value	43	dist. From very bottom of boot to spetum [bjl - bootl]	do not imput value	,		
48	septum length - do not imput value	43	if bj logic = 0 => septum = septum exp; if bj logic = 1 => septum = septum c				
49	septum length do not imput value	73	bj logic = 0 = 2 septam = septam exp, ii bj logic = 1 = 2 septam = septam e	do not impat value	•		
50	sbore dia sep* [Needed for both boot logics]	20.5	DeBruijn1 vrfd; septum small bore dia [assume = lbore dia sep]				
	lbore dia sep* [Needed for both boot logics]	21.2	DeBruijn1 vrfd; septum large bore dia [assume = sbore dia sep]				
		21.2					
52	sep width exp [Need for logic 0 only]	4	septum width; direct measurement if remove plug	do not immedia		\vdash	
53 54	sep width calc - do not imput value	4	septum width; calc. => extreme bore - sbore - lbore	do not imput value		\vdash	
	sep width - do not imput value	4	if bj logic = 0 => sep width = sep width exp; if bj logic = 1 => sep width = sep	do not imput value	2		
55	1.	246		1.7			
56		346	dist from top of boot (socket) to where G hole enters bore [not at cent of tone l				
57	bj f1	131	dist from top of boot (socket) to where F1 hole enters bore [not at cent of tone	holej			
58							
59							
60							
61							
62							
	IV. Tone Hole Diameters						
64	f2	6.5					
65	e	5.5			-		
66	d	5.4					
67							
68	С	9					
69	b	7.4					
70	a	5.8					
71	a	11					
	g f1	10.7				\vdash	
73	·-	10.7					
	e1	12.8	e1 tone hole dia, on long joint [need to average NS and EW dias, NS usually gro	eaterl			
74 75	d1	11	d1 tone hole dia, on long joint [need to average NS and EW dias, NS usually gri			\vdash	
76	c1	10	c1 tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need to average NS and EW dias, NS usually great tone hole dia, on long joint [need tone hole				
77	C.1	10	tone note dia, on long joint [need to average NS and EW dias, NS usually gre	cater j			
						\vdash	
78 79						\vdash	
80							
81							
	V. Tone Hole Depths						
83		34	DeBruijn1, Tone holes not drilled at extreme angles, average				
84		27					
85	d	27					
86							
87	С	29					
88	b	28					
89	a	28.5					
90	g	17.3	meas along bot tone hole wall [north wall, toward reed,tone hole usually at ang	le1			
	<u>9</u> f1	22.2	meas along but tone hole wall [north wall, toward reed, the usually at any meas along east side tone hole wall [north wall, toward reed, thole usually at any				
	11	22.2	imeas along east side tone note wall (north wall, toward reed,) note usually at a	igiej		\vdash	
92	o1	9.1	e1 tone hole depth;meas east/west with deapth gauge [at center, or shortest d	int]			
93	CT	J.1	let tone note deput, meas easy west with deapth gauge fat tenter, or shortest d	iotj			

_		_				_	
0.4	A	B	C	D	E	F	G
94		9.5	d1 tone hole depth; meas east/west with deapth gauge [at center, or shortest of				
95	c1	9.4	c1 tone hole depth; meas east/west with deapth gauge [at center, or shortest of	istj		-	
96 97						-+	
98					_	-+	
98					+ +	+	
100							
	VI. Long Joint				+ +	+	
	lg length	598	total length of long joint				
	lg_tenon_bot	51	length bottom tenon on long joint [tenon going into boot joint]			_	
	lj bot bore	24.5	DeBruijn1 OOR 24 x 25; long joint bottom tenon bore diameter [tenon going in	nto hoot joint]		-	
	lj_bot_bore	30.4	DeBruijn1 OOR 30.7 x 30.1 long joint top tenon bore diameter [tenon going in				
	lg_tenon_top	41.8	length top tenon on long joint [tenon going into bell]	to being			
	e1 distance	69	dist long joint tenon to e1 [from bot of tenon to where tone hole enters bore]			-+	
	d1 distance	267	dist long joint tenon to d1 [from bot of tenon to where tone hole enters bore]				
	c1 distance	448	dist long joint tenon to c1 [from bot of tenon to where tone hole enters bore]				
110	CI distance		discreng joint contributed of [main social contributed three contributed checks social				
111							
112							
113							
114							
	VII. Bore diameters at Tone Holes						
116	f2	11.8					
117	e	12.7					
118	d	13.2					
119							
120	С	17.3					
121	b	17.4					
122	a	17.4	DeBruijn1, vrfd, bore is almost cyn. At these three right hand tone holes				
123	g	21.8					
	f1	24					
125							
	e1	25.3	e1 tone hole bore diameter on long joint		\Box		
	d1	28.7	d1 tone hole bore diameter on long joint				
128	c1	29.8	c1 tone hole bore diameter on long joint				
129							
130							
131							
132							
133							
	VIII. Bell		DeBruijn1, no tone hole in the bell				
	bell logic	0	If bell_logic = 0 => normal conical bore; if bell_logic = 1 => inverted concial b	ore			
	bell_length (0, 1, 2)	318	total length of bell [lines 141 + 144 = line 136]				
	bell_bot_bore (0, 1, 2)	31.4	dia bore at the bottom of bell [end with socket]				
	bell_top_bore 0, (1, 0, 2)	32.6	dia bore at the top of bell [where low Bb exits]				
	bell_center_bore (only for logic 2)		dia bore at max center of expansion				
	bell_wall (only for logic 2)		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 =>100]			
142	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion		Just for David	=0 =>100]			
142 143	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2)	42	Just for David bell socket length	=0 =>100]			
142 143 144	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2)		Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits]	=0 =>100]			
142 143 144 145	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2)	42 56.1	Just for David bell socket length	=0 =>100]			
142 143 144 145 146	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2)		Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits]	=0 =>100]			
142 143 144 145 146 147	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) bellgespansion_length (only for logic 2)		Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits]	=0 =>100]			
142 143 144 145 146 147 148	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belfig IX. PITCH	56.1	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138	=0 =>100]			
142 143 144 145 146 147 148 149	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belfig IX. PITCH pitch	56.1	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess	=0 =>100]			
142 143 144 145 146 147 148 149	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) bellg IX. PITCH pitch freq_init	56.1 415 380	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable	=0 =>100]			
142 143 144 145 146 147 148 149 150	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency	56.1 415 380 2	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter	=0 =>100]			
142 143 144 145 146 147 148 149 150 151	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belfig IX. PITCH pitch freq_init Delta frequency Number of frequencies	56.1 415 380 2 60	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq	=0 =>100]			
142 143 144 145 146 147 148 149 150 151 152 153	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) bellg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust	56.1 415 380 2	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter	=0 =>100]			
142 143 144 145 146 147 148 149 150 151 152 153	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title	56.1 415 380 2 60	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter	=0 =>100]			
142 143 144 145 146 147 148 149 150 151 152 153 154 155	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) bellg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust	56.1 415 380 2 60	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq	=0 =>100]			
142 143 144 145 146 147 148 149 150 151 152 153	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title	56.1 415 380 2 60	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter	=0 =>100]			
142 143 144 145 146 147 148 149 150 151 152 153 154 155 156	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title	56.1 415 380 2 60	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM	=0 =>100]			
142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title	56.1 415 380 2 60	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places	=0 =>100]			
142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belfg IX. PITCH pitch pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations	56.1 415 380 2 60 1.05	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal	=0 =>100]			
142 143 144 145 146 147 150 151 152 153 154 155 155 156 157 158 159 160 161	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore	56.1 415 380 2 60 1.05	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Notes on wing join boret: DeBruijn1 normal Notes on wing join boret: DeBruijn1 normal Notes on diameters Initial bore diameter	=0 =>100]			
142 143 144 145 146 147 150 151 152 153 154 155 156 157 158 159 160 161 162	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) bell_expansion_length (only for logic 2) bellfig IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket	56.1 415 380 2 60 1.05	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Notes on wing join boret: DeBruijn1 normal Number of diameters Initial bore diameters Initial bore diameter dist1; measured from the bottom of the wing joint-10mm	=0 =>100]			1
142 143 144 145 146 147 150 151 152 153 154 155 156 157 158 159 160 161 162 163	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) bellg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 31mm rod 110mm from socket OOR	56.1 415 380 2 60 1.05 15 11.1 0	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Notes on wing join boret: DeBruijn1 normal Number of diameters Initial bore diameter dist1; measured from the bottom of the wing joint- 10mm dist2; measured from the bottom of the wing joint- 11mm	=0 =>100]			1
142 143 144 145 146 147 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 31.5mm rod 110mm from socket OOR 30.5mm rod 125mm from socket	56.1 415 380 2 60 1.05 15 11.1 0 0 300	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Notes on wing join boret: DeBruijn1 normal Number of diameters Initial bore diameter dist1; measured from the bottom of the wing joint- 10mm dist2; measured from the bottom of the wing joint- 11mm dist3; measured from the bottom of the wing joint- 12mm	=0 =>100]			1 1 1
142 143 144 145 147 148 149 150 151 152 153 154 155 156 157 160 161 162 163 164 165	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) bell_expansion_length (only for logic 2) bellfig IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 31.mm rod 110mm from socket OOR 30.5mm rod 125mm from socket 30.5mm rod 125mm from bell top	56.1 415 380 2 60 1.05 15 11.1 0 0 300 243	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Number of diameters Initial bore diameters Initial bore diameter dist1; measured from the bottom of the wing joint-10mm dist3; measured from the bottom of the wing joint-12mm dist4; measured from the bottom of the wing joint-12mm dist4; measured from the bottom of the wing joint-12mm dist4; measured from the bottom of the wing joint-13mm	=0 =>100]			1 1 1 1 1
142 143 144 145 146 147 150 151 152 153 154 155 156 157 160 161 162 163 164 165 166	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) bellg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 31.4mm rod 110mm from socket OOR 30.5mm rod 125mm from bell top 31.5mm rod 145mm from bell top 31.5mm rod 145mm from bell top 31.5mm rod 145mm from bell top	56.1 415 380 2 60 1.05 15 11.1 0 0 300 243 80	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Notes on wing join boret: DeBruijn1 normal Number of diameters Initial bore diameter dist1; measured from the bottom of the wing joint-10mm dist2; measured from the bottom of the wing joint-11mm dist3; measured from the bottom of the wing joint-12mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint-13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint-14mm				1 1 1 1 1 1
142 143 144 145 146 147 150 151 152 153 154 155 156 157 160 161 162 163 164 165 166 165	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 15 11.1 0 0 300 243 80 50	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Notes on wing join boret: DeBruijn1 normal Number of diameters Initial bore diameters Initial bore diameter dist1; measured from the bottom of the wing joint- 10mm dist2; measured from the bottom of the wing joint- 11mm dist3; measured from the bottom of the wing joint- 12mm dist4; measured from the bottom of the wing joint- 13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint- 13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint- 15mm	Bottom wing jt	17		1 1 1 1 1 1 1
142 143 144 145 146 147 150 151 152 153 154 155 156 157 161 162 163 164 165 166 167 168	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) bellg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 31.4mm rod 110mm from socket OOR 30.5mm rod 125mm from bell top 31.5mm rod 145mm from bell top 31.5mm rod 145mm from bell top 31.5mm rod 145mm from bell top	56.1 415 380 2 60 1.05 15 11.1 0 0 300 300 243 80 50 18	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Number of diameters Initial bore diameters Initial bore diameter dist1; measured from the bottom of the wing joint- 10mm dist2; measured from the bottom of the wing joint- 11mm dist3; measured from the bottom of the wing joint- 12mm dist4; measured from the bottom of the wing joint- 13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint- 13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint- 13mm dist6; measured from the bottom of the wing joint- 15mm dist6; measured from the bottom of the wing joint- 15mm dist6; measured from the bottom of the wing joint- 15mm dist6; measured from the bottom of the wing joint- 15mm	Bottom wing jt top boot small	17.1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
142 143 144 145 146 147 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 15 11.1 0 0 300 243 80 50 18	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Notes on wing join boret: DeBruijn1 normal Number of diameters Initial bore diameter dist1; measured from the bottom of the wing joint-10mm dist2; measured from the bottom of the wing joint-11mm dist3; measured from the bottom of the wing joint-13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint-13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint-15mm dist6; measured from the bottom of the wing joint-15mm dist6; measured from the bottom of the wing joint-16mm dist8; measured from the bottom of the wing joint-16mm dist8; measured from the bottom of the wing joint-17mm	Bottom wing jt			1 1 1 1 1 1 1 1 1 1
142 143 1445 145 146 147 150 151 152 153 154 155 156 157 158 160 161 162 163 164 165 166 167 168 169 170	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 15 11.1 0 0 300 243 80 50 18 0 175	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Notes on wing join boret: DeBruijn1 normal Number of diameters Initial bore diameter dist1; measured from the bottom of the wing joint-10mm dist2; measured from the bottom of the wing joint-11mm dist3; measured from the bottom of the wing joint-12mm dist4; measured from the bottom of the wing joint-13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint-15mm dist6; measured from the bottom of the wing joint-15mm dist7; measured from the bottom of the wing joint-15mm dist6; measured from the bottom of the wing joint-15mm dist8; measured from the bottom of the wing joint-17mm dist8; measured from the bottom of the wing joint-17mm dist9; measured from the top of the bootjoint - small bore side-18mm	Bottom wing jt top boot small top boot large	17.1 25.1		1 1
142 143 144 145 146 147 150 151 152 153 154 155 156 157 161 162 163 164 165 166 167 168 169 170 171	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 15 11.1 0 0 300 243 80 50 18 0 175 240	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Number of diameters Initial bore diameters Initial bore diameter dist1; measured from the bottom of the wing joint- 10mm dist2; measured from the bottom of the wing joint- 11mm dist3; measured from the bottom of the wing joint- 12mm dist4; measured from the bottom of the wing joint- 13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint- 15mm dist6; measured from the bottom of the wing joint- 15mm dist6; measured from the bottom of the wing joint- 15mm dist6; measured from the bottom of the wing joint- 15mm dist8; measured from the bottom of the wing joint- 15mm dist8; measured from the bottom of the wing joint- 15mm dist8; measured from the bottom of the wing joint- 15mm dist9; measured from the bottom of the wing joint- 17mm dist9; measured from the top of the bootjoint - small bore side- 19mm dist10; measured from the top of the bootjoint - small bore side- 19mm	Bottom wing jt top boot small top boot large sbore dia sep	17.1 25.1 20.5		1 1 1
142 143 144 145 146 147 150 151 152 153 154 155 156 157 160 161 162 163 164 165 166 167 169 170 171 172	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 15 11.1 0 0 300 243 80 50 18 0 19 19 19 19 19 19 19 19 19 19	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Number of diameters Initial bore diameters Initial bore diameter dist1; measured from the bottom of the wing joint-10mm dist2; measured from the bottom of the wing joint-11mm dist3; measured from the bottom of the wing joint-13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint-13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint-15mm dist6; measured from the bottom of the wing joint-16mm dist6; measured from the bottom of the wing joint-17mm dist9; measured from the bottom of the wing joint-17mm dist9; measured from the bottom of the wing joint-17mm dist9; measured from the bottom of the wing joint-17mm dist9; measured from the bottom of the bootjoint - small bore side-18mm dist10; measured from the top of the bootjoint - small bore side-20mm	Bottom wing jt top boot small top boot large	17.1 25.1		1 1
142 143 144 145 146 147 150 151 152 153 154 155 156 161 162 163 164 165 166 167 168 169 170 171 172 172 173	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 15 11.1 0 0 300 243 80 50 18 0 175 240 342 0	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Notes on wing join boret: DeBruijn1 normal Number of diameters Initial bore diameter dist1; measured from the bottom of the wing joint-10mm dist2; measured from the bottom of the wing joint-11mm dist3; measured from the bottom of the wing joint-13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint-15mm dist6; measured from the bottom of the wing joint-15mm dist6; measured from the bottom of the wing joint-15mm dist6; measured from the bottom of the wing joint-17mm dist6; measured from the bottom of the wing joint-17mm dist8; measured from the bottom of the wing joint-17mm dist8; measured from the bottom of the wing joint-17mm dist9; measured from the top of the bootjoint - small bore side-18mm dist11; measured from the top of the bootjoint - small bore side-20mm dist11; measured from the top of the bootjoint - large bore side-20mm dist11; measured from the top of the bootjoint - large bore side-21mm	Bottom wing jt top boot small top boot large sbore dia sep	17.1 25.1 20.5		1 1 1
142 143 144 145 146 147 150 151 152 153 154 155 155 156 157 160 161 162 163 164 165 167 168 169 170 171 171 172	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 15 11.1 0 0 300 243 80 50 18 0 175 240 342 0 330	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Number of diameters Initial bore diameters Initial bore diameter dist1; measured from the bottom of the wing joint- 10mm dist2; measured from the bottom of the wing joint- 11mm dist3; measured from the bottom of the wing joint- 13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint- 15mm dist6; measured from the bottom of the wing joint- 15mm dist6; measured from the bottom of the wing joint- 15mm dist6; measured from the bottom of the wing joint- 15mm dist7; measured from the bottom of the wing joint- 15mm dist8; measured from the bottom of the wing joint- 15mm dist9; measured from the bottom of the wing joint- 15mm dist9; measured from the bottom of the wing joint- 15mm dist9; measured from the bottom of the wing joint- 15mm dist1; measured from the top of the bootjoint - small bore side- 18mm dist11; measured from the top of the bootjoint - small bore side- 20mm dist12; measured from the top of the bootjoint - large bore side- 22mm dist13; measured from the top of the bootjoint - large bore side- 22mm	Bottom wing jt top boot small top boot large sbore dia sep lbore dia sep	17.1 25.1 20.5		1 1 1 1 3 3
142 143 144 145 146 147 150 151 152 153 154 155 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 1.05 1.05 1.11.1 0 0 300 243 80 50 18 0 175 240 342 0 330 0	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Number of diameters Initial bore diameters Initial bore diameter dist1; measured from the bottom of the wing joint-10mm dist2; measured from the bottom of the wing joint-13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint-13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint-17mm dist6; measured from the bottom of the wing joint-16mm dist6; measured from the bottom of the wing joint-17mm dist7; measured from the bottom of the wing joint-17mm dist8; measured from the bottom of the wing joint-17mm dist9; measured from the bottom of the wing joint-17mm dist9; measured from the bottom of the wing joint-18mm dist10; measured from the top of the bootjoint - small bore side-18mm dist11; measured from the top of the bootjoint - small bore side-20mm dist12; measured from the top of the bootjoint - small bore side-20mm dist11; measured from the top of the bootjoint - large bore side-22mm DeBruijn1 vrfd, cm. stuck brass ferrule; dist14; measured from the top of the bo	Bottom wing it top boot small top boot large sbore dia sep lbore dia sep	17.1 25.1 20.5 21.2		1 1 1
142 143 144 145 146 147 150 151 152 153 154 155 156 157 160 161 162 163 164 165 166 167 168 169 170 171 171 172 173 174 175 176 177 177 177 177 177 177 177	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 15 11.1 0 0 300 243 80 50 175 240 342 0 0 0	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Notes on wing join boret: DeBruijn1 normal Number of diameters Initial bore diameters Initial bore diameter dist1; measured from the bottom of the wing joint- 10mm dist2; measured from the bottom of the wing joint- 12mm dist4; measured from the bottom of the wing joint- 13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint- 15mm dist6; measured from the bottom of the wing joint- 15mm dist6; measured from the bottom of the wing joint- 16mm dist6; measured from the bottom of the wing joint- 17mm dist9; measured from the bottom of the wing joint- 18mm dist9; measured from the top of the bootjoint - small bore side- 18mm dist10; measured from the top of the bootjoint - small bore side- 20mm dist11; measured from the top of the bootjoint - large bore side- 21mm dist12; measured from the top of the bootjoint - large bore side- 22mm DeBruijn1 vrfd, cm. stuck brass ferrule; dist15; measured from the top of the b	Bottom wing it top boot small top boot large sbore dia sep lbore dia sep	17.1 25.1 20.5		1 1 1 3 3 3 3
142 143 144 145 146 147 148 150 151 152 153 154 155 160 161 162 163 164 167 168 169 170 171 172 173 174 175 176 177	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 15 11.1 0 0 300 243 80 50 18 0 175 240 342 0 0 0 0 0 0 0 0 0 0 0 0 0	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Number of diameters Initial bore diameters Initial bore diameter dist1; measured from the bottom of the wing joint- 10mm dist2; measured from the bottom of the wing joint- 12mm dist3; measured from the bottom of the wing joint- 13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint- 15mm dist6; measured from the bottom of the wing joint- 15mm dist6; measured from the bottom of the wing joint- 15mm dist7; measured from the bottom of the wing joint- 15mm dist8; measured from the bottom of the wing joint- 15mm dist9; measured from the bottom of the wing joint- 15mm dist9; measured from the bottom of the wing joint- 15mm dist1; measured from the top of the bootjoint - small bore side- 19mm dist11; measured from the top of the bootjoint - small bore side- 20mm dist12; measured from the top of the bootjoint - large bore side- 22mm DeBruijn1 vrfd, cm. stuck brass ferrule; dist15; measured from the top of the long joint- 25mm beBruijn1 vrfd, cm. stuck brass ferrule; dist15; measured from the top of the long joint- 25mm	Bottom wing it top boot small top boot large sbore dia sep lbore dia sep	17.1 25.1 20.5 21.2		1 1 1 3 3 3 3 4
142 143 144 145 146 150 150 151 152 153 154 155 156 157 161 162 163 164 165 169 170 171 172 173 174 175 176	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 1.05 1.11 0 0 300 243 80 50 175 240 0 330 0 342 0 0 0 342 0 0 0 0 0 0 0 0 0 0 0 0 0	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Number of diameters Initial bore diameter dist1; measured from the bottom of the wing joint-10mm dist2; measured from the bottom of the wing joint-11mm dist3; measured from the bottom of the wing joint-13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint-15mm dist6; measured from the bottom of the wing joint-16mm dist6; measured from the bottom of the wing joint-17mm dist7; measured from the bottom of the wing joint-18mm dist8; measured from the bottom of the wing joint-17mm dist9; measured from the bottom of the wing joint-18mm dist9; measured from the bottom of the wing joint-17mm dist9; measured from the bottom of the wing joint-18mm dist1; measured from the top of the bootjoint - small bore side-18mm dist1; measured from the top of the bootjoint - small bore side-20mm dist11; measured from the top of the bootjoint - large bore side-21mm dist13; measured from the top of the bootjoint - large bore side-22mm DeBruijn1 vrfd, cm. stuck brass ferrule; dist14; measured from the top of the boBruint - 25mm dist16; measured from the top of the long joint-25mm dist17; measured from the top of the long joint-25mm	Bottom wing it top boot small top boot large sbore dia sep lbore dia sep	17.1 25.1 20.5 21.2		1 1 1 3 3 3 3 4 4
142 143 144 145 146 147 150 151 152 153 154 155 156 161 161 162 163 164 165 167 170 171 171 172 173 174 175 177 178 177 178 179 179	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 15 11.1 0 0 300 243 80 50 175 240 342 0 0 0 0 0 0 0 0 0 0 0 0 0	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Notes on wing join bore: DeBruijn1 normal Number of diameters Initial bore diameter dist1; measured from the bottom of the wing joint-10mm dist2; measured from the bottom of the wing joint-12mm dist3; measured from the bottom of the wing joint-13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint-15mm dist6; measured from the bottom of the wing joint-16mm dist6; measured from the bottom of the wing joint-16mm dist6; measured from the bottom of the wing joint-16mm dist6; measured from the bottom of the wing joint-18mm dist6; measured from the bottom of the wing joint-18mm dist9; measured from the top of the bootjoint - small bore side-18mm dist10; measured from the top of the bootjoint - small bore side-20mm dist11; measured from the top of the bootjoint - large bore side-21mm dist12; measured from the top of the bootjoint - large bore side-22mm DeBruijn1 vrfd, cm. stuck brass ferrule; dist15; measured from the top of the lo dist16; measured from the top of the long joint-25mm dist17; measured from the top of the long joint-25mm dist17; measured from the top of the long joint-25mm dist17; measured from the top of the long joint-25mm	Bottom wing it top boot small top boot large sbore dia sep lbore dia sep	17.1 25.1 20.5 21.2		1 1 1 3 3 3 3 4
142 143 144 145 146 147 150 151 152 153 154 155 156 157 158 160 161 162 163 164 165 165 167 171 172 173 174 175 176 177 178 177 178 179 179 179 179 179 179 179 179 179 179	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 15 11.1 0 0 300 243 80 50 18 0 175 240 342 0 0 0 0 0 0 0 0 0 0 0 0 0	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Number of diameters Initial bore diameters Initial bore diameter dist1; measured from the bottom of the wing joint- 10mm dist2; measured from the bottom of the wing joint- 12mm dist3; measured from the bottom of the wing joint- 13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint- 15mm dist6; measured from the bottom of the wing joint- 15mm dist7; measured from the bottom of the wing joint- 15mm dist8; measured from the bottom of the wing joint- 15mm dist9; measured from the bottom of the wing joint- 15mm dist9; measured from the bottom of the wing joint- 15mm dist9; measured from the bottom of the wing joint- 15mm dist9; measured from the bottom of the wing joint- 15mm dist9; measured from the bottom of the wing joint- 15mm dist1; measured from the top of the bootjoint - small bore side- 18mm dist11; measured from the top of the bootjoint - small bore side- 20mm dist11; measured from the top of the bootjoint - large bore side- 21mm dist13; measured from the top of the bootjoint - large bore side- 22mm DeBruijn1 vrfd, cm. stuck brass ferrule; dist14; measured from the top of the long joint- 25mm dist17; measured from the top of the long joint- 25mm dist19; measured from the top of the long joint- 28mm dist19; measured from the top of the long joint- 28mm dist19; measured from the top of the long joint- 27mm DeBruijn1 OOR; dist19; measured from the top of the long joint- 27mm	Bottom wing it top boot small top boot large sbore dia sep libore dia sep	17.1 25.1 20.5 21.2		1 1 1 1 3 3 3 3 3 4 4 4 4
142 143 144 145 146 147 150 151 152 153 154 155 156 157 158 160 161 162 163 164 165 167 171 172 173 174 175 176 177 177 178 179 179 180 181 181	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 1.05 1.05 1.05 1.1.1 0 0 300 243 80 0 50 175 240 0 330 0 0 342 0 0 0 342 0 0 0 345 0 0 0 0 0 0 0 0 0 0 0 0 0	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Number of diameters Initial bore diameters Initial bore diameter dist1; measured from the bottom of the wing joint-10mm dist2; measured from the bottom of the wing joint-11mm dist3; measured from the bottom of the wing joint-13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint-15mm dist6; measured from the bottom of the wing joint-16mm dist7; measured from the bottom of the wing joint-17mm dist9; measured from the bottom of the wing joint-18mm dist9; measured from the bottom of the wing joint-19mm dist9; measured from the bottom of the wing joint-19mm dist9; measured from the bottom of the wing joint-19mm dist9; measured from the bottom of the wing joint-19mm dist1; measured from the top of the bootjoint - small bore side-18mm dist1; measured from the top of the bootjoint - small bore side-20mm dist11; measured from the top of the bootjoint - large bore side-21mm dist11; measured from the top of the bootjoint - large bore side-22mm DeBruijn1 vrfd, cm. stuck brass ferrule; dist14; measured from the top of the long joint-25mm dist16; measured from the top of the long joint-25mm dist11; measured from the top of the long joint-25mm dist11; measured from the top of the long joint-25mm DeBruijn1 OOR; dist19; measured from the top of the long joint-28mm DeBruijn1 OOR; 270 x 200; dist20; measured from the top of the long joint-28mm	Bottom wing it top boot small top boot large sbore dia sep libore dia sep	17.1 25.1 20.5 21.2		1 1 1 3 3 3 3 4 4 4 4
142 143 144 145 146 147 148 150 151 152 153 154 155 156 157 160 161 162 163 164 167 171 172 173 174 175 176 177 178 179 180 181 181 181 182 183	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 15 11.1 0 0 243 80 50 175 240 342 0 0 0 0 0 0 0 0 0 0 0 0 0	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Number of diameters Initial bore diameter dist1; measured from the bottom of the wing joint-10mm dist2; measured from the bottom of the wing joint-12mm dist4; measured from the bottom of the wing joint-13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint-15mm dist6; measured from the bottom of the wing joint-16mm dist6; measured from the bottom of the wing joint-16mm dist6; measured from the bottom of the wing joint-17mm dist6; measured from the bottom of the wing joint-18mm dist6; measured from the bottom of the wing joint-19mm dist9; measured from the top of the bootjoint - small bore side-18mm dist10; measured from the top of the bootjoint - small bore side-20mm dist11; measured from the top of the bootjoint - small bore side-21mm dist12; measured from the top of the bootjoint - large bore side-22mm DeBruijn1 vrfd, cm. stuck brass ferrule; dist15; measured from the top of the lodist15; measured from the top of the long joint-25mm dist17; measured from the top of the long joint-25mm dist19; measured from the top of the long joint-27mm DeBruijn1 OOR; dist19; measured from the top of the long joint-28mm DeBruijn1 OOR; dist19; measured from the top of the long joint-28mm DeBruijn1 OOR; dist19; measured from the top of the long joint-28mm DeBruijn1 OOR; dist19; measured from the top of the long joint-28mm DeBruijn1 OOR; dist19; measured from the top of the long joint-28mm	Bottom wing it top boot small top boot large sbore dia sep libore dia sep	17.1 25.1 20.5 21.2		1 1 1 3 3 3 3 4 4 4
142 143 144 145 147 148 149 150 151 152 153 154 155 156 157 158 160 161 162 163 164 167 171 172 173 174 175 176 177 177 178 179 179 179 180 181 181	bell_bot_bore_expansion (only for logic 2) Outside diameter of wood at expansion bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2) belflg IX. PITCH pitch freq_init Delta frequency Number of frequencies Frequency adjust X. Title title XI. Bore Diameter Locations Bell Bore 31.4mm dia. at socket 30.5mm rod 125mm from socket OOR 30.5mm rod 125mm from bell top 31mm rod 145mm from bell top OOR 32mm rod 185mm from bell top OOR	56.1 415 380 2 60 1.05 1.05 1.05 1.05 1.1.1 0 0 300 243 80 0 50 175 240 0 330 0 0 342 0 0 0 342 0 0 0 345 0 0 0 0 0 0 0 0 0 0 0 0 0	Just for David bell socket length distance of maxium expansion to top of bell [where Bb exits] Usually about 10mm more than line 138 input the historical pitch of the bassoon, must input value, best guess Initial frequency range variable frequency increment parameter number of frequencies to scan for min chi sq frequency adjustment parameter Bassoon Calculation: DeBruijn1-O-BrusMIM997-Wg1-WOB-DNM Notes on long joint bore: DeBruijn1 OOR in places Notes on boot joint bore: DeBruijn1 normal Number of diameters Initial bore diameters Initial bore diameter dist1; measured from the bottom of the wing joint-10mm dist2; measured from the bottom of the wing joint-11mm dist3; measured from the bottom of the wing joint-13mm DeBruijn1 vrfd; dist5; measured from the bottom of the wing joint-15mm dist6; measured from the bottom of the wing joint-16mm dist7; measured from the bottom of the wing joint-17mm dist9; measured from the bottom of the wing joint-18mm dist9; measured from the bottom of the wing joint-19mm dist9; measured from the bottom of the wing joint-19mm dist9; measured from the bottom of the wing joint-19mm dist9; measured from the bottom of the wing joint-19mm dist1; measured from the top of the bootjoint - small bore side-18mm dist1; measured from the top of the bootjoint - small bore side-20mm dist11; measured from the top of the bootjoint - large bore side-21mm dist11; measured from the top of the bootjoint - large bore side-22mm DeBruijn1 vrfd, cm. stuck brass ferrule; dist14; measured from the top of the long joint-25mm dist16; measured from the top of the long joint-25mm dist11; measured from the top of the long joint-25mm dist11; measured from the top of the long joint-25mm DeBruijn1 OOR; dist19; measured from the top of the long joint-28mm DeBruijn1 OOR; 270 x 200; dist20; measured from the top of the long joint-28mm	Bottom wing it top boot small top boot large sbore dia sep libore dia sep	17.1 25.1 20.5 21.2		1 1 1 3 3 3 3 4 4 4 4