_	A	Р	[°]	D	E	-	6		
1	A I. Bocal	В	C Original bocal, DeLoose2 no	D	E	F	G	H DeLoose1	1
2	dia reed end bocal string length (0, 1)		inside diameter of reed end of bocal length of bocal inserted into receiver			\square	$-\top$		
4	metal bocal length top (0, 1)		meas. along top of bocal						
5	metal bocal length bot (0, 1) dia wj end		meas. along bottom of bocal inside diameter of bocal						
7				2				2	
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				2	
10 11									
12									-
	II. Wing Joint Lengths choke bore dia.	9.5	bocal receiver; DeLoose2; no receiver logic 1; bore diameter of choke; logic 0; either diameter bocal bottom or beginning of bore at bot	tom or receiver				9.9	
15	receiver length (1, 0) (formally choke length)	75	DeLoose2 vrfd long; logic 1; length of choke from top of wing joint; logic 0; length of receiver (sa	me as string length)				55	
16	wing joint length tenon length		total wing joint length, including tenon and socket tenon length			_		525 44.5	
18	wj f2	237	dist top of wing to where tone hole enters bore [not at the center of the tone hole]					230	
20	wj e	295	dist top of wing to where tone noise enters bore [not at the center of the tone nois]					298	
21 22	wj d	335						340	
23	Bore dia. Bottom of wing joint		Need to Average, usally oval; DeLoose2; no					14.8	
24 25	Bore dia. top of boot joint small side Bore dia. top of boot joint large side	15.9 23.6	DeLoose2, vrfd gap between wing and boot, OOR 15.4 x 16.1					17 24.5	
26	III. Boot Lengths		DeLoose2, Two whole design No						
28	bj logic	1	logic=> if bj logic = $0 \Rightarrow$ plug removed; if bj logic = $1 \Rightarrow$ plug cannot be removed					1	
	bi c bj b	95 149	dist from top of boot to where topmost tone hole enter bore [not at center of tone hole]					95 153	
31	bj a	189	Del assa massurad with least one server d				_	190	
32 33	bistotal [Needed for both boot logics]		DeLoose2 measured with boot cap removed total length of boot, include socket, along the small bore side,					432	
34	bjltotal [Needed for both boot logics] plug small [Need for logic 0 only]	430	total length of boot, include socket, along large bore side plug thickness, large bore side			H		432 0	
36	plug large [Need for logic 0 only]		plug thickness, sail bore side					0	
37 38	boots [Needed for both boot logics]	402	DeLoose2 vrfd long; hook length along s bore => bjs-septum length = boot - septum <= calc the	e septum		\vdash		392	
39	bootl [Needed for both boot logics]		hook length along I bore => bjl-septum length = boot - septum <= calc the septum					392	
40 41	boots bottom [Needed for both boot logics]		use hook, dist of bore [dist on stick plus 7mm, diff between hook and bot of stick]; 2 + 7=9					22	
42 43	bootl bottom [Needed for both boot logics]		use hook, dist of bore [same as boots bot except tenon depth will be different] DeLoose2 something in the bottom of the boot, paper?					22	
44	extreme bore [Needed for logic 1 only]	48.5	DeLoose2, vrfd very large, Outside dia of plug [measured] = small bore dia + large bore dia + th	e septum width				50	
45 46	septum length exp [Need for logic 0 only]	0	dist. from very bottom of boot to septum [point between the large and small bore]			\vdash			
47	septum length calc - do not imput value	28	dist. From very bottom of boot to spetum [bil - boot]	do not imput value				40	
48 49	septum length - do not imput value		if bj logic = 0 => septum = septum exp; if bj logic = 1 => septum = septum calc	do not imput value				40	
50	sbore dia sep* [Needed for both boot logics] lbore dia sep* [Needed for both boot logics]	18.9 17.2	DeLoose2, vrfd larger than up bore; septum small bore dia [assume = lbore dia sep] DeLoose2 vrfd much smaller than down bore; septum large bore dia [assume = sbore dia sep]					19.4 19	
51 52	sep width exp [Need for logic 0 only]	0	septum width; direct measurement if remove plug						
53 54	sep width calc - do not imput value sep width - do not imput value		septum width; calc. => extreme bore - sbore - lbore if bi logic = 0 => sep width = sep width exp; if bi logic = 1 => sep width = sep width calc	do not imput value do not imput value				11.6 11.6	
55									
56 57	bj g bj f1		dist from top of boot (socket) to where G hole enters bore [not at cent of tone hole] dist from top of boot (socket) to where F1 hole enters bore [not at cent of tone hole]					341 127	
58 59									
60									
61 62									
63	IV. Tone Hole Diameters	F 0						6	
64 65	e	5.8 6.2						6.1	
66 67	d	5.9						6.4	
68	C	6.8						6.9	
69 70	a	7						6.5 5.6	
71 72	gf1	9.6 11						10.5 10.3	
73									
74 75	e1d1	10.1	DeLoose2 oblong 10.5 x 11.5; e1 tone hole dia, on long joint [need to average NS and EW dias] d1 tone hole dia, on long joint [need to average NS and EW dias, NS usually greater]					11.3 9.8	
76 77	c1	13	c1 tone hole dia, on long joint [need to average NS and EW dias, NS usually greater] DeLoose2 tone holes on long joint not totally round					12.5	
78									
79 80									
81 82	V. Tone Hole Depths						Delocar	1 joints re	varcad
83	f2	25.7	DeLoose2; tone hole not drilled exactly in center of bore				Decouse.	28.3	Verseu
84 85	e d	22.5 27				\vdash		26.7 31]
86	-								
87 88	сb	23 21.8						25 22.8	
89 90	a	20.2 14	meas along bot tone hole wall [north wall, toward reed,tone hole usually at angle]			\square	$-\top$	23 25	
91	ř1		meas along bot tone hole wall fronth wall, toward reed, tone hole usually at angle]					20.5	
92 93	e1	8.7	e1 tone hole depth;meas east/west with deapth gauge [at center, or shortest dist]					9.3	
	d1	8.4	d1 tone hole depth; meas east/west with deapth gauge [at center, or shortest dist] c1 tone hole depth; meas east/west with deapth gauge [at center, or shortest dist]		_	\square		8	
96		/.1	Lez tone noie deput, meas easy west with deapth gauge [at celler, of Shorlest dist]					0	
97 98						\vdash			
98 99									
	VI. Long Joint		DeLoose2 a table along long joint						
102	lg_length lg_tenon_bot		total length of long joint; length bottom tenon on long joint [tenon going into boot joint]		_	\square	$-\top$	575 42.7	
104	lj_bot_bore	22.2	long joint bottom tenon bore diameter [tenon going into boot joint]					23.4	
105 106	li top bore lg_tenon_top	31.9 43.3	long joint top tenon bore diameter [tenon going into bell] OOR 34.0 x 34.8 length top tenon on long joint [tenon going into bell]			\vdash		31.3 44	
107	e1 distance	49	dist long joint tenon to e1 [from bot of tenon to where tone hole enters bore]					49	
109	d1 distance c1 distance	249 471	dist long joint tenon to d1 [from bot of tenon to where tone hole enters bore] dist long joint tenon to c1 [from bot of tenon to where tone hole enters bore]					249 464	
110 111						\square	$-\top$		
112									
113 114									
	VII. Bore diameters at Tone Holes	12.7						12.7	
110		44.1						+/	

	А	В	С	D	E	F	G	Н	I
117	e	13.3		_			-	13.4	
118	d	13.6						13.6	
119									
120	c	16.2						17	
121	b	17						17.3	
122	a	17.2						17.4	
123 124	g f1	18.4 22						22.3	
124	11	22						22.5	
126	e1	23.2	e1 tone hole bore diameter on long joint					23.8	
127			d1 tone hole bore diameter on long joint					27	
128	c1	30.2	DeLoose2 OOR; c1 tone hole bore diameter on long joint					30.2	
129									
130									
131									
132 133									
	VIII. Bell		DeLoose2 no tone hole in the bell						
	bell logic	0	If bell_logic = 0 => normal conical bore; if bell_logic = 1 => inverted concial bore; if bell_logic =	2 => hell expansion				0	
	bell length (0, 1, 2)		total length of bell					319	
	bell_bot_bore (0, 1, 2)		DeLoose2; OOR 30.9 x 31.2; dia bore at the bottom of bell [end with socket];					31.2	
	bell top bore 0, (1, 0, 2)		DeLoose1, OOR, bell flare, measured at bottom of caliper jaws; dia bore at the top of bell [when	e low Bb exits];				32.6	
	bell_center_bore (only for logic 2)	_	dia bore at max center of expansion						
	bell_wall (only for logic 2)					μŢ			
	bell_bot_bore_expansion (only for logic 2)		dist of bottom to maxium of expansion [including bell socket length, if bell logic=0 =>100]		I				
	Outside diameter of wood at expansion bell tenon (0, 1, 0, 2)	44.7	Just for David bell socket length			\vdash		45.3	
	bell_tenon (0, 1, 0, 2) bell expansion length (only for logic 2)	44.7	distance of maxium expansion to top of bell [where Bb exits]					45.3	
	belfiq	39	Usually about 10mm more than line 138;		-			42	
145	benng		osaan, assac Ishini mole didil ille 150,		1			74	
147									
148	IX. PITCH								
	pitch	430	input the historical pitch of the bassoon, must input value, best quess				-	430	
	freq_init		Initial frequency range variable					380	
	Delta frequency		frequency increment parameter			\vdash		3	
	Number of frequencies Frequency adjust		number of frequencies to scan for min chi sq frequency adjustment parameter			\vdash		18	
	X. Title	1.05						1.05	
	title		Bassoon Calculation: DeLoose2-O-Watel242-Wg1-WOB-DNM						
156	une		Bassoon calculation becouse o matche ie wy mos binn						
157			Notes on long joint bore: DeLoose2 OOR more than normal, especially near large tenon						
158			Notes on boot joint bore: DeLoose2 normal						
159	XI. Bore Diameter Locations		Notes on wing joint bore: DeLoose2 normal						
160	Dell Deve		Number of diameters					19	
161 162	Bell Bore 30.0mm dia, at socket		Initial bore diameter [do not include in line 160 counting] dist1; measured from the bottom of the wing joint- 10mm			+		9.9 470	
162	31mm rod 110mm from socket OOR	415 380	dist1; measured from the bottom of the wing joint- 10mm dist2; measured from the bottom of the wing joint- 11mm			+	1	380	
164	32.5mm dia.at bell end OOR		dist3; measured from the bottom of the wing joint- 12mm				1	348	
165			DeLoose2 OOR; dist4; measured from the bottom of the wing joint- 13mm		1		1	255	
166		125	DeLoose2 vrfd gap, OOR; dist5; measured from the bottom of the wing joint- 14mm				1	30	
167		70	dist6; measured from the bottom of the wing joint- 15mm	Bottom wing it	16.5		1	0	
168		78	dist7; measured from the top of the bootjoint - small bore side- 16mm	top boot small	15.9		2	0	
169			dist8; measured from the top of the bootjoint - small bore side- 17mm	top boot large	23.6	\vdash	2	0	
170			dist9; measured from the top of the bootjoint - small bore side- 18mm	ahara dia aan	10.0	\vdash	2	225	
171 172		320 260	dist10; measured from the top of the bootjoint - large bore side- 19mm dist11; measured from the top of the bootjoint - large bore side- 20mm	sbore dia sep Ibore dia sep	18.9	+	3	330 290	
173			dist12; measured from the top of the bootjoint - large bore side- 20mm dist12; measured from the top of the bootjoint - large bore side- 21mm	Hook Length	402		3	290	
173			dist12; measured from the top of the bootjoint - large bore side- 22mm	HOOK LENGTH	402		3	180	
175		538	dist13; measured from the top of the bootjoint - large bore side - 23mm		1		4	90	
176		490	DeLoose2 OOR; dist15; measured from the top of the long joint- 24mm	lj_bot_bore	22.2		4	500	
177		425	DeLoose2 OOR; dist16; measured from the top of the long joint- 25mm				4	440	
178		337	dist17; measured from the top of the long joint- 26mm				4	380	
179		285	DeLoose2 OOR; dist18; measured from the top of the long joint- 27mm		I	\vdash	4	318	
180		225	dist19; measured from the top of the long joint- 28mm			\vdash	4	250	
181 182			dist20; measured from the top of the long joint- 29mm			\vdash	4	165 126	
182			dist21; measured from the top of the long joint- 30mm DeLoose2 OOR vrfd; dist22; measured from the top of the long joint- 31mm				4	40	
184			dist23; measured from the top of the long joint- 32mm	li top bore	31.9		4	40	
104		U	pases, measured from the top of the long joint' senin	n top buie	51.9	I	4	U	