	A I. Bocal	B stamped	C Original bocal; AdlerFG6 no bocal	D	Е	F	G	H AdlerFG3 Reil	I
2	dia reed end		inside diameter of reed end of bocal					stamped wing 1	
3	bocal string length (0, 1) metal bocal length top (0, 1)		length of bocal inserted into receiver meas. along top of bocal						
5	metal bocal length bot (0, 1)		meas. along bottom of bocal						
7	dia wj end		inside diameter of bocal						
8	bocal logic	2	if bocal logic = 0 => bocal is choke; if bocal logic = 1 =>choke in wing joint calc; if b	ocal logic = 2 => no l	ocal			2	
10									
11 12									
13	II. Wing Joint Lengths	9.9	bocal receiver: AdlerFG6 No	f have at hottom as so	coluce			9.9	
15	choke bore dia. receiver length (1, 0) (formally choke length)	70	logic 1; bore diameter of choke; logic 0; either diameter bocal bottom or beginning o AdlerFG6 vrfd long; logic 1; length of choke from top of wing joint; logic 0; length of	receiver (same as stri	ing leng	gth)		49	
16 17	wing joint length tenon length	495 49.3	AdlerFG6 Stamped #2 on wing, a shorter wing; total wing joint length, including tend tenon length	n and socket				504 49.3	
18	wj f2								
20	wj tz wj e	199 288	dist top of wing to where tone hole enters bore [not at the center of the tone hole]					201 288	
21	wi d	330	AdlerFG6 vrfd; f and d tone holes at fairly steep angle					333	
23	Bore dia. Bottom of wing joint	14.3	AdlerFG6 vrfd small; need to Average, usally oval; AdlerFG6 no					14.5	
25	Bore dia. top of boot joint small side Bore dia. top of boot joint large side	15.3 24.4	AdlerFG6 verified small AdlerFG6 verified small					15.4 24.7	
26	III. Boot Lengths								
28	bj logic	1	logic=> if bj logic = 0 => plug removed; if bj logic = 1 => plug cannot be removed					1	
29	bj c bj b	84 153	dist from top of boot to where topmost tone hole enter bore [not at center of tone ho	iej		\vdash		85 151	
	bj a	195	AdjorEC6 man. With host can removed					195	
33	bjstotal [Needed for both boot logics]	434	AdlerFG6 meas. With boot cap removed total length of boot, include socket, along the small bore side,					432	
34 35	bjltotal [Needed for both boot logics] plug small [Need for logic 0 only]	434 0	total length of boot, include socket, along large bore side plug thickness, large bore side			<u> </u>		432 0	
36	plug large [Need for logic 0 only]	0	plug thickness, small bore side					0	
37		383	hook length along s bore => bjs-septum length = boot - septum <= calc the septum			\vdash		382	
	bootl [Needed for both boot logics]	383	hook length along I bore => bjl-septum length = boot - septum <= calc the septum					382	
41		30	use hook, dist of bore [dist on stick plus 7mm, diff between hook and bot of stick]					29	
42	bootl bottom [Needed for both boot logics]	30	use hook, dist of bore [same as boots bot except tenon depth will be different] 23 +			\vdash		29	
44	extreme bore [Needed for logic 1 only]	44.7	AdlerFG6 vrfd large; Outside dia of plug [measured] = small bore dia + large bore d	ia + the septum width				44.8	
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]					0	
47 48	septum length calc - do not imput value septum length - do not imput value	51 51	dist. From very bottom of boot to spetum [bjl - bootl] If bj logic = 0 => septum = septum exp; if bj logic = 1 => septum = septum calc	do not imput value do not imput value		-		50 50	
49									
50 51	sbore dia sep* [Needed for both boot logics] Ibore dia sep* [Needed for both boot logics]	18.6 19.1	AdlerFG6 OOR; septum small bore dia [assume = lbore dia sep] septum large bore dia [assume = sbore dia sep] [mesure if cork can be removed; for	Logic 0]				18.5 19.1	
52 53	sep width exp [Need for logic 0 only] sep width calc - do not imput value	7	septum width; direct measurement if remove plug septum width; calc. => extreme bore - sbore - lbore	do not imput value				7.2	
54	sep width - do not imput value	7	if by logic = $0 = 8$ sep width = sep width exp; if by logic = $1 = 8$ sep width = sep width	do not imput value				7.2	
55 56	bi q	338	dist from top of boot (socket) to where G hole enters bore [not at cent of tone hole]					337	
57 58	bj g bj f1	141	AdlerFG6 vrfd long; dist from top of boot (socket) to where F1 hole enters bore [not	at cent of tone hole]				135	
59									
60 61									
62	IV. Tone Hole Diameters								
64		5.7	AdlerFG6 vrfd					4	
65 66	e d	6.2						5.8 5.6	
67		0.3	AdlayECC suifd					7.4	
68 69	b	8.2 7	AdlerFG6 vrfd					6.6	
70 71	a g	6.3 9						5.9 8.7	
72 73	f1	9.1						8.6	
74	e1	13.3	e1 tone hole dia, on long joint [need to average NS and EW dias, NS usually greater]					13	
75 76	d1 c1	9.9	AdlerFG6 there is a flap; d1 tone hole dia, on long joint [need to average NS and EW 15; c1 tone hole dia, on long joint [need to average NS and EW dias, NS usually greater than the state of the state		\vdash	\vdash		9.8 13.9	
77 78			The state of the s					2.5	
79									
80 81						\vdash			
	V. Tone Hole Depths	46.4	AdlerFG6 f and d tone holes drilled at extreme angle, and very long épaule,					42.5	
84	e	38	AdlerFG6 long épaule					35	
85 86	d	41.8	AdlerFG6 long épaule					40	
87 88	C	29						29	
89	a	26.6 30.5						28.5 31	
90 91	q f1	17.5 24.5	meas along bot tone hole wall [north wall, toward reed,tone hole usually at angle] meas along east side tone hole wall [north wall, toward reed,t hole usually at angle]					17 22	
92	01								
93 94	e1 d1	8.3 9.3	e1 tone hole depth; meas east/west with deapth gauge [at center, or shortest dist] d1 tone hole depth; meas east/west with deapth gauge [at center, or shortest dist]			L		7.3 8.2	
95 96	c1	9.5	c1 tone hole depth; meas east/west with deapth gauge [at center, or shortest dist]			\vdash		8.8	
97									
98 99						┢			
100	VI. Long Joint		AdlerFG6 a table along long joint			F			
102	lg_length	578	AdlerFG6 vrfd short than AdlerFG3; total length of long joint					588	
	Ig_tenon_bot Ii bot bore	50.5 25.4	length bottom tenon on long joint [tenon going into boot joint] long joint bottom tenon bore diameter [tenon going into boot joint]			\vdash		50.5 24.9	
105 106	lj_top_bore	32.9 38.6	long joint top tenon bore diameter [tenon going into bell] length top tenon on long joint [tenon going into bell]					33.3 40.5	
107	e1 distance	62	dist long joint tenon to e1 [from bot of tenon to where tone hole enters bore]					62	
108 109	d1 distance c1 distance	261 479	AdlerFG6 flap over tone hole; dist long joint tenon to d1 [from bot of tenon to where AdlerFG6 vrfd long, same as AdlerFG3; ; dist long joint tenon to c1 [from bot of teno	tone hole enters bore n to where tone hole	I enters I	bore1		260 479	
110		-				Ë			
111				1		1			

$\overline{}$					-	- 1		1	
112	A	В	C	D	E	F	G	Н	I
112					-				
113									
115	VII. Bore diameters at Tone Holes								
116	f2	12.2						11.6	
117	e	12.7						12.8	
118	d	12.8						13.1	
119									
120	c	15.1						15.1	
121 122	b	16.3						16.2	
123	a	17.2 19.3			-			17.1 19.2	
124	g f1	22.7						23.2	
125	12	22.7						25.2	
126	e1	25.1	e1 tone hole bore diameter on long joint					25.1	
127	d1	27.4	d1 tone hole bore diameter on long joint					27.8	
128	c1	31.1	c1 tone hole bore diameter on long joint					31.2	
129									
130									
131 132					-	\vdash			
132						\vdash			
134	VIII. Bell		AdlerFG6 no tone hole in the bell,						
135	bell logic	1	If bell logic = $0 \Rightarrow$ normal conical bore; if bell logic = $1 \Rightarrow$ inverted concial bore; if	bell logic = 2 => hel	ll expai	nsion		1	
136	bell_length (0, 1, 2)		total length of bell [lines 141 + 144 = line 136]					331	
137	bell_bot_bore (0, 1, 2)	33.8	AdlerFG6 vrfd; dia bore at the bottom of bell [end with socket]					34.1	
138	bell_top_bore 0, (1, 0, 2)		dia bore at the top of bell [where low Bb exits]					33.5	
139	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			ш			
	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		_	\vdash		40.5	
143 144	bell_tenon (0, 1, 0, 2) bell_expansion_length (only for logic 2)		bell socket length distance of maxium expansion to top of bell [where Bb exits]					40.5	
144	belfig	37	uistance or maxium expansion to top or beil [where bb exits]					37	
145	senig	5/				\vdash		5/	
147									
	IX. PITCH								
149	pitch		input the historical pitch of the bassoon, must input value, best guess					430	
	freq_init		Initial frequency range variable					380	
	Delta frequency		frequency increment parameter					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	
155	X. Title title		Bassoon Calculation: AdlerFG6-O-Rapoport-Wq1-WOB-DNM						
156	title		Dassoon Calculation. Adien Go-O-Napopon-Wg1-WOB-DNW		-				
157			Notes on long joint bore: AdlerFG6 good						
158			Notes on boot joint bore: AdlerFG6 normal			П			
159	XI. Bore Diameter Locations		Notes on wing joint bore: AdlerFG6 normal, an obstruction in the bore						
160		21	Number of diameters					21	
161	Bell Bore	9.9	Initial bore diameter [do not include in line 160 counting]			\vdash		9.9	
162	33.8mm diameter at socket	405	dist1; measured from the bottom of the wing joint- 10mm		-	\vdash	1	422	
163 164	33mm rod 115mm from socket 32mm rod 158mm from socket	350 330	dist2; measured from the bottom of the wing joint- 11mm AdlerFG6 vrfd gap, could be an obstruction in the bore; dist3; measured from the bol	tom of the wing is int	12mm	\vdash	1	330 268	
165	31mm rod 265mm from socket	145	AdlerFG6 vrfd gap; dist4; measured from the bottom of the wing joint- 13mm	tom or the wing Joint-	- 1211111		1	170	
166	32.5mm diameter at bell end	0	dist5; measured from the bottom of the wing joint- 13mm				2	0	
167	DESCRIPTION OF SELECTION OF SEL	78	dist6; measured from the bottom of the wing joint- 15mm	Bottom wing jt	14.3		2	70	
168		123	dist7; measured from the top of the bootjoint - small bore side- 16mm	top boot small	15.3		2	135	
169		178	dist8; measured from the top of the bootjoint - small bore side- 17mm	top boot large	24.4		2	183	
170		265	AdlerFG6 vrfd gap; dist9; measured from the top of the bootjoint - small bore side- 1				2	273	
171		0	dist10; measured from the top of the bootjoint - large bore side- 19mm	sbore dia sep	18.6	\vdash	3	0	
172			dist11; measured from the top of the bootjoint - large bore side- 20mm	Ibore dia sep	19.1	\vdash	3	300	
173 174			dist12; measured from the top of the bootjoint - large bore side- 21mm	Hook Length	383	\vdash	3	245	
175			dist13; measured from the top of the bootjoint - large bore side- 22mm dist14; measured from the top of the bootjoint - large bore side- 23mm		-	\vdash	3	205 160	
176			dist15; measured from the top of the long joint- 24mm	lj bot bore	25.4	\vdash	3	80	
177		523	AdlerFG6 OOR; dist16; measured from the top of the long joint- 25mm	ij bot boic	23.4		4	545	
178		427	dist17; measured from the top of the long joint- 26mm				4	450	
179		350	dist18; measured from the top of the long joint- 27mm				4	415	
180		274	dist19; measured from the top of the long joint- 28mm				4	305	
181		223	dist20; measured from the top of the long joint- 29mm				4	245	
182		163	dist21; measured from the top of the long joint- 30mm			\Box	4	170	
183			dist22; measured from the top of the long joint- 31mm		L	\vdash	4	115	
184		35	AdlerFG6 OOR; dist23; measured from the top of the long joint- 32mm	lj top bore	32.9	_	4	65	