Heckel, Johann, 18 key bassoon; Heckel4-O-Murry
Complete Project Title: Heckel4-O-Murry-Wg1-WOB-DNM
c. 1840-1850 Almenräder/Heckel; made before Heckel placed serial numbers
Johann Adam Heckel (1812 Adorf - 1877 Biebrich)
Karl Almenräder (1786-1843)
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Location: Murry Collection, Tennessee
Measured 20 Sept 20124

18 Key: Wing: 3 keys: high A, high C, C# left thumb
Boot: 9 keys: Bb 3rd finger, Bb right thumb, G Double drilled, F, F#, Ab right little finger (large bore), Ab right thumb (large bore), [Note: there are two Ab keys that enter the large boot bore]
Long joint: 6 keys: Eb left little finger [key missing], C# left little finger [touch missing], C, B touch, Bb touch,
Bell: Bb flap

No; Swallowtail F key touch
No; Two-piece saddle on F key flap and touch
No; Two-hole boot joint system
No; Military bell
Yes; Bell flare; more of a rounding of the very top of the bell
Yes; Ivory Bell crown
No; Bell chamber
Yes; Tone hole on bell (low Bb flap)
Yes; Table on long joint
No; Date

Important Points:

1. All keys mounted in pillars and axials
2. Most Tone hole surfaces rounded as a modern bassoon
3. G key, A tone hole, on boot vents to both small bore (larger tone hole) and large bore (smaller tone hole).
4. Bb tone hole on boot have vents to both small & large bores

Notes:

1. Bassoon made of maple
2. Has a U-tube
3. All keys mounted in pillars and axials
4. No saddles, so more key guides
5. No joints hard rubber lined
6. Bell: Bb flap on pillars and rods, B tone hole metal lined
7. All tone holes on long joint rounded except low E, C tone hole
8. Not many metal tone hole inserts [Not in finger holes], less than Heckel1
9. Has action rod on boot Bb key, A round “button like” key for Bb touch see Photos
10. Key guides on: bell Bb flap; G key on boot; wing C#, high A and C
11. Bottom of wing becomes wider, to make C# tone hole longer
12. All push pins, no threaded rods
13. All three tenons have brass ferrules
14. Bell almost cylindrical, OOR

Standing Height; Bell, long joint, boot 123.5cm vrfd
[measured with boot cap removed, U-tube, measured from bottom ferrule]
Wing and boot 83.3cm vrfd short

Stamps on boot, long joint and bell [Not found on wing]

Measurements not included on Data file

Ab tone hole [boot, large side]	12.0mm diameter [metal liner]
[right little finger]	331mm from boot socket
	Drilled over toward large bore
	14.3mm length
F# tone hole [boot, large side]	9.0mm diameter
[right thumb]	228mm from boot socket
Opens independently	Drilled over toward large bore
	23.3mm length [no metal liner]
Ab tone hole [boot, small side]	4.8mm diameter vrfd
[right thumb, linked to Ab]	261mm from small boot socket
When Ab opened, F# opens	Drilled down to large boot bore
	13.0mm length [no metal liner]
F# tone hole [boot, large side]	7.8mm diameter vrfd
[right little finger]	216mm from large boot socket
Also closes low F	8.7mm length [no metal liner]
C# tone hole [wing]	5.3mm diameter
[left thumb]	32mm from wing tenon
	11.2mm length [wing thickened at C#]
Bb tone hole [boot, both bores]	7.1mm diameter down bore [top tone hole]
[right 3rd finger & right thumb]	6.4mm diameter up bore
	167mm from small boot socket
	176mm from large socket
	23.4mm length down bore
	14.6mm length up bore
Low Eb tone hole, long joint	Could not remove key
[left little finger]	
Low C# tone hole, long joint	13.2mm diameter
[left little finger]	392mm from small long joint tenon
	4.4mm length [not lined]
Low B [Bell]	16.4mm diameter [Has medal insert]
	116mm from bell socket
	7.0mm length vrfd long [long metal insert]
Undercutting on long joint	Yes, in long joint
Boot joint small socket depth	38.4mm
Boot joint large socket depth	39.3mm

Cronin Measurement	295mm vrfd short
Wing thickness across E [II] tone hole	45.1mm
Maximum thickness of boot at C [IV] tone hole	50.3mm

A tone holes on Boot: larger tone hole on down bore

Down boot bore: 9.8mm diameter [metal insert], 275mm from small socket
22.5mm length [metal insert extents into down bore]

Up boot bore: 9.0mm diameter [metal insert], 244mm from large socket
16.3mm length

Thread sizes Heckel4: Pivot screws: M3.0 x 0.5 [Low C# key]