| 6-key tenoroon, Thomas CAHUSAC, London, $\mathbf{1 7 8 9}$ |  |  |  |
| :--- | :--- | :--- | :--- |
| BASIC - OUTSIDE | $\mathbf{m m}$ | $\mathbf{m m}$ | Comments |
| Joint lengths |  |  |  |
| Standing length to bell | 837.5 |  |  |
| Standing length to wing joint | 641 |  |  |
| Wing joint length | 381.5 |  |  |
| Wing joint - tenon length | 35.2 |  |  |
| Butt joint length | 293 |  |  |
| Long joint length | 419.5 |  |  |
| Long joint - south tenon length | 36.7 |  |  |
| Long joint - north tenon length | 30.6 |  |  |
| Bell length | 191 |  |  |
| Vent hole distance from north | x |  |  |
| Vent hole approx diameter | x |  |  |
| Tone hole distance, axis |  |  |  |
| Wing - tone hole 1 distance from north | 183 |  |  |
| Wing - tone hole 2 distance from north | 215 |  |  |
| Wing - tone hole 3 distance from north | 247.5 |  |  |
| Butt - tone hole 4 distance from north | 60 |  |  |
| Butt - tone hole 5 distance from north | 98.5 |  |  |
| Butt - tone hole 6 distance from north | 133 |  |  |
| Butt - tone hole F distance from north | 243 |  |  |
| Butt - tone hole E distance from north | 107.5 |  |  |
| Butt - tone hole Ab distance from north | 219 |  |  |
| Butt - tone hole F\# distance from north | 206.5 |  |  |
| Long joint - tone hole D distance from north | 373.5 |  |  |


| 6-key tenoroon, Thomas CAHUSAC, London, 1789 |  |  |  |
| :--- | :--- | :--- | :--- |
| Long joint - tone hole Eb distance from north | 332 |  |  |
| Long joint - tone hole C distance from north | 234 |  |  |
| Long joint - tone hole Bb distance from north | 75 |  |  |
| Wing - major axis at tone hole 1 | 41.8 |  |  |
| Wing - major axis at tone hole 2 | 42 |  |  |
| Wing - major axis at tone hole 3 | 42.3 |  |  |
| Butt - major axis (side to side) at tone hole 4 | 59.8 |  |  |
| Butt - minor axis (front to back) at tone hole 4 | 41.2 |  |  |
| Butt - major axis (side to side) at tone hole 5 | 59 |  |  |
| Butt - minor axis (front to back) at tone hole 5 | 41.3 |  |  |
| Butt - major axis (side to side) at tone hole 6 | 58 |  |  |
| Butt - minor axis (front to back) at tone hole 6 | 40.8 |  |  |
| Butt - major axis (side to side) at tone hole F | 54 |  |  |
| Butt - minor axis (front to back) at tone hole F | 38.2 |  |  |
| Butt - major axis (side to side) at tone hole E | 58.7 |  |  |
| Butt - minor axis (front to back) at tone hole E | 41.2 |  |  |
| Butt - major axis (side to side) of the bottom butt ellipse | 48.3 |  | No ferrule |
|  |  |  |  |
| Butt - minor axis (front to back) of the bottom butt ellipse | 32 |  | Ferrule = 0.7 to 1.1 mm |
| Butt - major axis (side to side) of the top butt ellipse | 60.5 |  | With ferrule |
| Butt - minor axis (front to back) of the top butt ellipse | 41.7 |  | Ferrule $=0.7$ to 1.1 mm |
| Butt - cork major axis (side to side) | 36 |  |  |
| Butt - cork minor axis (front to back) | 16 |  |  |
| Long joint - minor axis (front to back) at tone hole D | 34.3 |  |  |
| Long joint - major axis (side to side) at tone hole D | 32.5 |  |  |
| Long joint - minor axis (front to back) at tone hole Eb | 33 |  |  |


| 6-key tenoroon, Thomas CAHUSAC, London, $\mathbf{1 7 8 9}$ |  |  |  |
| :--- | :--- | :--- | :--- |
| Long joint - major axis (side to side) at tone hole Eb | 34.6 |  |  |
| Long joint - minor axis (front to back) at tone hole C | 34.9 |  |  |
| Long joint - major axis (side to side) at tone hole C | 33.7 |  |  |
| Long joint - minor axis (front to back) at tone hole Bb | 38.5 |  |  |
| Long joint - major axis (side to side) at tone hole Bb | 37.5 |  |  |
| Tone hole ang le, $\varnothing$, length | Min. | Max. |  |
| Wing - tone hole 1 angle | N $26.5^{\circ}$ |  |  |
| Wing - tone hole 2 angle | S $24.5^{\circ}$ |  |  |
| Wing - tone hole 3 angle | S $26^{\circ}$ |  |  |
| Wing - tone hole 1 approx. $\varnothing$ | 3.7 |  |  |
| Wing - tone hole 2 approx. $\varnothing$ | 4.5 |  |  |
| Wing - tone hole 3 approx. $\varnothing$ | 3.8 |  |  |
| Wing - tone hole 1 approx. length | 20.7 |  |  |
| Wing - tone hole 2 approx. length | 20.4 |  |  |
| Wing - tone hole 3 approx. length | 21.3 |  |  |
| Butt - tone hole 4 angle | N $16.5^{\circ}$ |  |  |
| Butt - tone hole 5 angle | S $23.5^{\circ}$ |  |  |
| Butt - tone hole 6 angle | S $26^{\circ}$ |  |  |
| Butt - tone hole E angle | S $27^{\circ}$ |  |  |
| Butt - tone hole 4 approx. $\varnothing$ | 5.4 |  |  |
| Butt - tone hole 5 approx. $\varnothing$ | 5 |  |  |
| Butt - tone hole 6 approx. $\varnothing$ | 4.5 |  |  |
| Butt - tone hole E approx. $\varnothing$ | 6.9 |  |  |
| Butt - tone hole 4 approx. length | 15 |  |  |
| Butt - tone hole 5 approx. length | 17.5 |  |  |
| Butt - tone hole 6 approx. length | 14 |  |  |
|  |  |  |  |


| 6-key tenoroon, Thomas CAHUSAC, London, $\mathbf{1 7 8 9}$ |  |  |  |
| :--- | :--- | :--- | :--- |
| Butt - tone hole E approx. length | 13 |  |  |
| Long joint - tone hole C angle | 0 |  |  |
| Long joint - tone hole C $\varnothing$ | 7.6 | 8 |  |
| Long joint - tone hole C approx. length | 8 |  |  |
| BASIC - INSIDE |  |  |  |
| Inner bore length |  |  |  |
| Bore length | 1476.8 |  |  |
| Wing bore length | 384 |  |  |
| Butt - small bore length | 275.5 |  |  |
| Butt - big bore length | 277 |  |  |
| Butt - small bore socket length | 35 |  |  |
| Butt - big bore socket length | 38.4 |  |  |
| Butt - small bore beginning of septum | 260 |  |  |
| Butt - big bore beginning of septum | 259.5 |  |  |
| Long joint length | 421 |  |  |
| Bell length | 193 |  |  |
| Inner bore beginning $\varnothing$ (not socket!) | Min. | Max. |  |
| Wing bore $\varnothing$ north | 11.5 | 12 |  |
| Wing bore $\varnothing$ south | 12.3 | 12.7 |  |
|  |  |  | Almost not possible. <br> Measured taken with bocal <br> intake |
| Bocal well length | 16 |  |  |
| Butt - small bore $\varnothing$ north | 12.6 |  |  |
| Butt - big bore $\varnothing$ north | 20.7 |  |  |
| Long joint $\varnothing$ north | 23.6 | 24.2 |  |


| 6-key tenoroon, Thomas CAHUSAC, London, $\mathbf{1 7 8 9}$ |  |  |  |
| :--- | :--- | :--- | :--- |
| Long joint $\varnothing$ south | 19.7 | 20.2 |  |
| Bell bore $\varnothing$ north | 20.8 | 21.4 |  |
| Bell bore $\varnothing$ south | 23.6 |  |  |
| Bell socket length | 35.3 |  |  |
| Bocal $\varnothing$ at the beginning | 3.7 | 3.8 | Measured from inside |
| Bocal thickness at the beginning | 0.3 | 0.5 |  |
| Bocal $\varnothing$ at the tenon | 8.2 | 8.5 |  |
| Bocal thickness at the tenon | 1.1 |  |  |
| Bocal length (along top) | 180 |  |  |
| COMPLETE - OUTSIDE | Min. | Max. |  |
| Bocal well thickness with ferrule | 6 |  | Without ferrule: 4.5 to 5.5 |
| Bocal well ferrule thickness | 6.6 | 1.3 |  |
| Wing - tenon thickness | 3.8 | 4 |  |
| Wing - tenon northern extern. $\varnothing$ | 20.2 | 20.4 |  |
| Wing - tenon southern extern. $\varnothing$ | 20.4 | 20.7 |  |
| Wing - tone hole A distance from north | x |  |  |
| Wing - tone hole A angle | x |  |  |
| Wing - tone hole A approx. $\varnothing$ | x |  |  |
| Wing - tone hole A approx. length | x |  |  |
| Wing - tone hole C distance from north | x |  |  |
| Wing - tone hole C angle | x |  |  |
| Wing - tone hole C approx. $\varnothing$ | x |  |  |
| Wing - tone hole C approx. length | x |  |  |
| Butt - big socket thickness with ferrule | 3 |  |  |


| 6-key tenoroon, Thomas CAHUSAC, London, $\mathbf{1 7 8 9}$ |  |  |  |
| :--- | :--- | :--- | :--- |
| Butt - small socket thickness with ferrule | 2.7 |  |  |
| Butt - top ferrule thickness | 0.7 | 1 |  |
| Minimum wall thickness between butt sockets | 4.6 |  |  |
| Butt - wood space between corks - bottom | x |  | One cork |
| Butt - big bore cork $\varnothing$ - bottom | 15.7 |  |  |
| Butt - small bore cork $\varnothing$ - bottom | 15.5 |  |  |
| Butt - wood wall between cork/front - small bore | 6.6 |  |  |
| Butt - wood wall between cork/front - big bore | 6.1 |  |  |
| Butt - wood wall between cork/back - small bore | 7.8 |  |  |
| Butt - wood wall between cork/back - big bore | 6.3 |  |  |
| Wood wall between cork/side - small bore | 7.4 |  |  |
| Wood wall between cork/side - big bore | 4.1 |  |  |
| Butt - bottom ferrule thickness | 0.7 | 1.1 |  |
| Long joint - south tenon thickness | 2.9 | 3.3 |  |
| Long joint - south tenon northern extern. $\varnothing$ | 25.9 | 26.6 |  |
| Long joint - south tenon southern extern. $\varnothing$ | 26.3 |  |  |
| Long joint - north tenon thickness | 3.5 | 3.8 |  |
| Long joint - north tenon northern extern. $\varnothing$ | 31.3 | 31.5 |  |
| Long joint - north tenon southern extern. $\varnothing$ | 31.6 | 32 |  |
| Bell socket thickness with brass | 3.4 | 3.9 | Without ferrule: 3.1 to 3.3 |
| Brass thickness of the bell ferrule | 0.3 | 0.6 |  |
| Bell ferrule height | 18 | 18.7 |  |
| Tone hole angle, $\varnothing$, length |  |  |  |
| Butt - tone hole Ab angle | S $12^{\circ}$ |  |  |
| Butt - tone hole F angle | N $19.5^{\circ}$ |  |  |
| Butt - tone hole F\# angle | S $17^{\circ}$ |  |  |


| 6-key tenoroon, Thomas CAHUSAC, London, $\mathbf{1 7 8 9}$ |  |  |  |
| :--- | :--- | :--- | :--- |
| Butt - tone hole Ab approx. $\varnothing$ | 3.8 |  |  |
| Butt - tone hole F approx. $\varnothing$ | 6.4 |  |  |
| Butt - tone hole F\# approx. $\varnothing$ | 5.2 |  |  |
| Butt - tone hole Ab approx. length | 9.8 |  |  |
| Butt - tone hole F approx. length | 12 |  |  |
| Butt - tone hole F\# approx. length | 15 |  |  |
| Long joint - tone hole D angle | 0 |  |  |
| Long joint - tone hole Eb angle | $56.5^{\circ}$ |  |  |
| Long joint - tone hole Bb angle | 0 |  |  |
| Long joint - tone hole D approx. $\varnothing$ | 6.7 | 7.3 |  |
| Long joint - tone hole Eb approx. $\varnothing$ | 5.35 |  |  |
| Long joint - tone hole Bb approx. $\varnothing$ | 8.8 | 9.3 |  |
| Long joint - tone hole D approx. length | 8 |  |  |
| Long joint - tone hole Eb approx. length | 6.6 |  |  |
| Long joint - tone hole Bb approx. length | 8.5 |  |  |
| COMPLETE - INSIDE |  |  |  |
| Wing - tone hole 1 distance from south | 210 |  |  |
| Wing - tone hole 2 distance from south | 159 |  |  |
| Wing - tone hole 3 distance from south | 125 |  |  |
| Wing - tone hole A distance from south | x |  |  |
| Wing - tone hole W2 distance from south | x |  |  |
| Butt - tone hole 4 distance from north | 55 |  |  |
| Butt - tone hole 5 distance from north | 106 |  |  |
| Butt - tone hole 6 distance from north | 142 |  |  |
| Butt - tone hole Ab distance from north | 220.5 |  |  |
| Butt - tone hole F distance from north | 240 |  |  |


| 6-key tenoroon, Thomas CAHUSAC, London, $\mathbf{1 7 8 9}$ |  |  |  |
| :--- | :--- | :--- | :--- |
| Butt - tone hole F\# distance from north | 212 |  |  |
| Butt - tone hole E distance from north | 115 |  |  |
| Long joint - tone hole D distance from north | 375 |  | From south 42 |
| Long joint- tone hole E b distance from north | 334 |  | From south 87 |
| Long joint - tone hole C distance from north | 235 |  | From south 188 |
| Long joint - hole Bb distance from north | 75 |  | From south 345 |
| Bell - vent hole distance from north | x |  |  |

