

Baroque and Classical Timpani – buying new or converting second-hand timpani

Adrian Bending, February 2017

Buying timpani? There are basically two options;

1 Buy new timpani from Potters. Approx cost £6,000 per pair. These will be bespoke, usually either in the traditional English shape or our new German bowl shape. Potters traditional drums were originally supplied in sizes 23" & 26", with extra outer drums of 21.5" and 27.5". However, if you are buying just a pair to cover a lot of repertoire, we would now advise 23.5" & 25.5" as these are closer together in size. Please see the section on 'sizes' below to read why this is important. A pair for baroque music only of 21.5" & 23" (or 23.5") is ideal. The price includes one pair of English calf heads and a pair of timpani stands.

2 Buy a pair of second-hand, deep, straight-sided hand-tuned timpani and have them cut down and made into 'as new' baroque or classical timpani. Approx cost £3,000 per pair, including purchase of the timpani.

The cut-down option

By far the most commonly available sizes second-hand are approx. 24" and 27.5". Drums of this size are too big to make baroque timpani, or even perfect classical timpani. Although you can get a good range of notes, when the drums are cut down the difference in size is too great, basically because the large drum is slightly too big. There is a more in-depth explanation of this later in this document. Other sizes such as 22" (ie to make a baroque pair 22" & 24") and 26" (to make a classical pair 24" & 26") occasionally appear on the second-hand market, but extremely rarely. Waiting for these is effectively not an option.

Cost of second-hand timpani;

A pair of 24" & 27.5" timpani normally sells for under £500, regardless of condition. We can source timpani if you do not have your own.

Basic costs of refurbishment;

Starting price for cutting down and refurbishing 2 timpani	£1700
Flesh hoops (x4, we recommend 4 so that you can have spare heads)	£ 300 approx
Heads £350-£500 (depending on English or Irish calf)	£ 500 approx
	Total £2500

Additional costs;

repairing bad tears in the bowl	variable
new counterhoop - each	£ 175
removable taps (removable T-piece when transporting)	£ 55 per lug
new or replacement taps, including drop taps	£ 100 approx
foam disc head protector	£ 25
soft bag with shoulder strap, designed to fit in Hardcase bass drum case	£ 250
Hardcase bass drum case, inc. wheels, extra straps and name plates	£ 160 approx

Further information:

Sizes

By far the most commonly available sizes of second-hand timpani are around 24.25-24.5" and 27.25-27.5" (hereafter referred to as 24" & 27"). A difference of 3" is fine for deeper pedal or machine timpani playing later repertoire, but for a pair of shallow timpani, a difference of 3" in diameter is really too great – the larger drum will have a much more

'modern' ie longer sound than the smaller one, with more note and less articulation. Drums were made like this, I believe, in order for a pair of drums to cover the standard classical octave of F-F (one could argue that you also need a top F# for pieces such as Schubert's *Unfinished Symphony* and Mendelssohn's *Elijah*). So, although drums of these sizes can cover those outer notes (although a 24" is not great above an E...) they actually do not match very well at all when playing more standard notes (such as C & G, D & A) which is a great pity because this is what they do the vast majority of the time! A difference of 2" in diameter is far better for intervals of a fourth and so, if you lucky enough to have a 24" and 26", this is absolutely perfect. The problem is that 26" drums are very much rarer, as are 22" to make a small classical drum, or to make a baroque pair with a 24".

Volume of the kettle

The problems of a pair of 24" & 27" are increased when they are cut down and this is to do with the **volume of the kettle**. When they are their original depth, the difference in volume is acceptable. But as the depth is reduced, due to the diameter staying constant, the **relative** volume can get too different. In order to make them match better we suggest making the 27" a bit shallower than it should be, and the 24" a bit deeper than it should be. However this is still not a perfect solution; the sound will still not match perfectly as the 27" will always have a more boomy quality, prone to being louder and more modern-sounding than the 24". We are often asked if it is possible to convert a 27" drum to a smaller diameter and the brief answer is that this does not work because the straight sides of the original kettle have to be retained in order to mount the fittings.

Hoops and taps

We only like to refurbish timpani so that they end up with an even numbers of taps. The best and most even tension is only achievable if the taps are opposite each other. So 6 taps is always better than 7. Most pairs we come across have 6 (24") and 7 (27") taps, or perhaps 7 and 8. This presents problems with the counterhoops and numbers of taps and fittings.

We recommend that the 27" has 8 taps after it has been refurbished, as 6 is too few ideally. This means that, if your tims come to us as 6 and 7 taps, we have to source a matching fitting and tap. Due to us having a large collection of spare sparts from other timpani this is often possible, but frequently we aren't able to immediately match the fitting and tap.

Counterhoops If you have a drum with an odd number of taps, we recommend that you have a new hoop made. This is cheaper than removing the loops from the old hoop and re-mounting them in different places. A new hoop will then not match the other timp's original hoop so, aesthetically, you may want to get new hoops for both drums.

Condition of the bowls, dents and holes.

This almost does not matter. In fact it is almost a shame if a bowl is in very good condition, since it will be heated up and beaten around quite a bit to achieve its new shape. Dents are no problem and unwanted leg holes can be filled. Repairs to the bowl (ie holes and tears in the copper) are possible but may incur extra costs. Sometimes due to serious damage to the bottom of the bowl, it is more cost effective to make a new bottom piece.

Legs or stands?

We strongly recommend that, following refurbishment, the timpani are played on stands, rather than using the original built-in legs. Stands allow the drum to be played at any angle, and allow for a greater variation of height whereby they can be played in a sitting or a standing position. Apart from stands being preferable, if a drum has been cut-down, there is no longer sufficient depth to store the leg inside the bowl. Also, if you are considering transporting the drums on aeroplanes, you will need to minimise the weight of the drums and so separate stands are absolutely vital.

Costs

Basic cost for refurbishing a pair of hand-tuned timpani; £1700.00

This includes cutting down the bowl, filling unwanted holes, forming a new wired edge, cleaning and polishing the bowl, taps and fittings, and re-assembling to “as new” condition.

Extra costs

Filling leg holes is fairly standard, whereas repairing tears in the copper is more expensive. A final price can only be quoted after we have seen the drums and assessed what needs doing.

Flesh hoops; £60-90 each, 2 hoops recommended per drum

We do not like using old wooden hoops because they tend to lose shape and/or split. Also, they often do not fit once we have finished the refurbishment. We recommend new aluminium flesh hoops. We also recommend having two sets of hoops made at the point of refurbishment so that, long term, you can have spare heads. It is more hassle to have the second set made later because you will need to bring the drums back to us.

Heads

We don't recommend using old heads that are on existing hoops or re-lapping old heads. The chance of two old heads matching in sound is virtually zero. Options for new heads include English (Cowley's) or Irish (Kalfo) goat and calf. The English heads are cheaper and have a more 'authentic' sound. They will last longer but, arguably, they will be less versatile in terms of what repertoire the drums are suitable for.

Transporting timpani

There is an international weight limit of 32kg on domestic baggage. A 27.5” timpani in a bag and a 26” bass drum hardcase just about weighs less than this, but any additional items such as spare heads make this very problematic. Several things can be done to reduce weight, for example foam rather than wooden protective discs, and removable taps.

Further online information and photos

For information and pictures of renovation, removable taps, touring with timpani, cases and bags please see; www.adrianbending.com/content/category/information/

And to see pictures of finished timpani and access recordings featuring them please see; www.adrianbending.com/content/category/instruments/

To find out more about new timpani, please see; www.henrypotter.co.uk/instruments-timpani