

Drum Tuning and Tensioning

Learning how to tune/tension your drums requires patience and practice. Although it's very subjective and a matter of personal taste, it also helps to know some of the physics of how a drum produces sound. For example, how the top (batter) and bottom (resonant) head function in relation to each other, the sound characteristics of different types of heads, and how that sound is affected by the dimensions and construction material of the shell. There's not enough space here to dive into all of this, but there are a number of great books and videos available, and lots of good information on line.

Tuning is overlooked and its importance is minimized; so however you choose to go about it, it is a critical component that must be learned. Regardless of what style you play, your personal drumming voice and character are shaped by how your drums and cymbals sound. Whether you call it tuning or tensioning, it's your musical signature – don't take it for granted.

Here's what I do. Before I start tuning, I make sure the bearing edges are in good shape, that the drum is not out-of-round, and that the head is in great condition – if problems exist with any of these, the drum will not tune properly. (Remember, bottom heads wear out too!) I also match the head for the drum. For example, if it's a standard-depth 12" maple tom, a single-ply coated head (I use a Remo Coated Ambassador) will always sound good. Also the type of music I'll be playing, where I'm playing, and how loud I'll be playing all factor into the head choice. If I'm playing in a 12,000-seat arena and the music is loud and I'll be hitting the drums harder, I may switch to a two-ply clear head (like a Remo Emperor).

There are lots of different methods and philosophies for tuning drums, and which one I use depends on the specific equipment/music/venue situation I'm in and how I want to sound on that gig/session. If I'm playing traditional acoustic jazz with a piano trio in a small restaurant, I may use smaller drums and tension my heads a little tighter (higher pitch) so that I can still get a good drum sound without having to hit them too hard. If I'm playing rock with a 10-piece horn band at an outdoor concert, I may use larger diameter drums with clear heads and tension them a bit looser so that I can hit them harder without over-striking the drums/heads.

Here's my standard quick and easy method that always produces good results. Starting with the resonant head, I tighten each tension rod a little at a time, in a star pattern, so that when I tap the head with my finger tip about 2 inches from the edge of the drum I hear the same pitch. In order to hear just the resonant head that I'm tensioning I muffle the batter head by placing my hand in the middle and applying a little bit of pressure. The head needs to be in tune with itself so that it vibrates evenly producing the purest and fullest tone. I repeat this procedure in tensioning the batter head while muffling the resonant head. When both heads are in tune with themselves, I listen to where they are pitched relative to each other. My starting point is to tighten the resonant head a whole step above the batter head (This is the difference between the first two notes in a major scale. For drummers who aren't familiar with singing scales and intervals, I suggest

using notes of a song you know. For example, the 2nd and 3rd notes of “Happy Birthday” are a whole step, aka a major 2nd, apart).

I start with the largest drum, say a 16” floor tom, and tension that to how I want it to sound. Then I move to the next smallest drum (14”) and tune that a perfect 4th above the 16” drum (if you’re not familiar with hearing a perfect 4th, use the first two notes of “Here Comes the Bride”). Most kits that I play have toms that are 2” apart in diameter, so I pitch them a perfect 4th from each other. If I’m playing a kit that has a 14” and then a 13” drum, I may adjust the interval between them to a major 3rd.

For most playing situations that I’m in, I rarely muffle the drums, except for using a little in the bass drum, usually on just the front head. Also, I personally don’t tune the bass or snare drum relative to the toms, although, like much of this discussion, that’s just a matter of personal taste. Finally, with all of the sound considerations, you should also add in the feel that various heads and tuning have. Double-ply heads on larger drums tuned to a lower pitch will not rebound the stick as much as thinner heads on smaller drums tuned to a higher pitch. Consequently, arm and wrist fatigue must also be included in your decisions on tuning and tensioning.

I realize that the above is an extremely abbreviated summary of what is a very complex subject. Again, the best advice I can give you is experiment often and become familiar with the physics of sound and the construction of heads and drums.

Good luck and have fun!