Hearing Protection - Protect your ears.

Many woodworkers do an excellent job of protecting their eyes from flying debris and their lungs from the hazards of sawdust...then pay little or no attention to protecting their ears from the often loud, abusive noises produced by certain woodworking machines. Not good!

Unlike most “visible” workshop hazards, constant exposure to the high frequencies of power woodworking tools and machines can be every bit as dangerous...and often produce hearing problems that can remain virtually undetectable for years. That's because the damaging effects of these high frequencies are cumulative; each prolonged exposure will affect your hearing microscopically. As a result, hearing loss is gradual and more often than not, goes unnoticed until it's too late.

High frequencies are chiefly generated by high-speed motors. The Occupational Safety and Health Act (OSHA) requires that businesses limit exposure time to power equipment in relation to the level of frequency. In other words, by federal standards, the higher the frequency of the sound, the shorter the time you should be exposed to it. And although home workshops are not regulated by these government standards, it's an important rule of thumb to follow for any machining operation.

Operations such as routing, shaping, jointing and planing are particularly damaging to your hearing. For example, a hand-held router motor operates at 18,000 to 25,000 rpms. Comparatively, the MARK V motor operates at 3,450 rpms. And, since routing operations often require very close attention, your head is usually much closer to the screaming motor than it should be. So, not only does the router motor expose you to ultra-high, damaging frequencies, it does so within far closer proximity to your ears than most other woodworking operations.

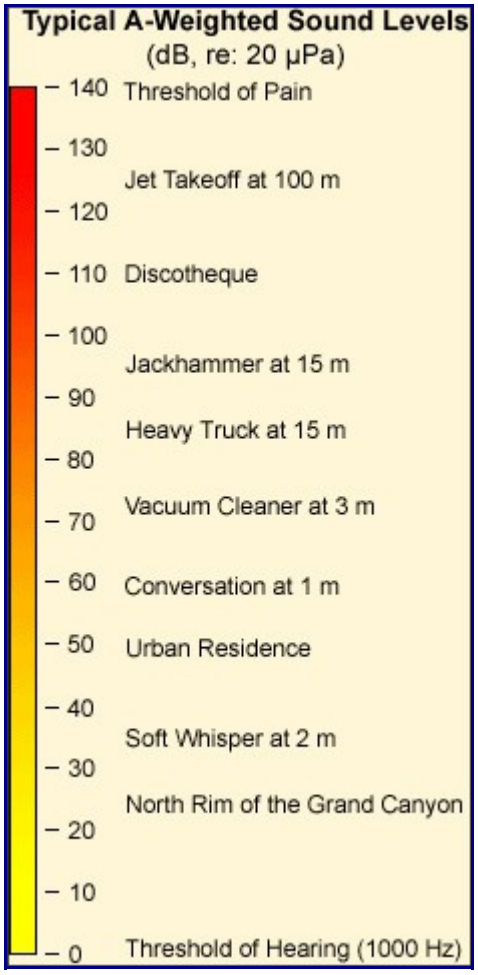
Hearing Protectors are the safest, most effective solution to this problem. A good set of these Protectors will only partially muffle the surrounding sounds, screening-out the high, hazardous sounds first and allowing you to carry on a normal conversation while saving your hearing from potential harm. Effective protectors are designed to do just this. That's because it's unwise to completely block off your hearing, which could also block out warnings or danger signals.

Cotton or wax offer little protection from the most damaging frequencies and can be hazardous to the delicate inner structure when they're stuffed into place. As a standard feature of your workshop, “headphone-type” hearing protectors can be shared, while cotton or wax cannot. Plastic protectors are lighter and won't conduct electricity. Two great reasons why we recommend their use with any high-speed woodworking operation...especially in garage or basement shops where concrete walls will not adequately absorb the sounds of your equipment.

So, in closing, remember that your ears are every bit as important to your continuing health and ability to live a happy, productive life as your eyes and your lungs. Treat them as such!

How Loud are Your Tools?

This OSHA diagram shows weighted sound levels measured in decibels. While the threshold for pain is around 140 dB, depending on the duration and level of the noise, hearing loss can occur above 90 dB in a matter of hours. To give some perspective for woodworkers, a bench top planer is often in the 105-110 dB range, and handheld routers are anywhere from 95-115 dB! Add in a powerful dust collector and that amounts to some serious noise! OSHA recommends hearing protection for any noise over 85 dB, and all of the hearing protection I profile reduces the impact on your ears by at least 25 dB. See below for the breadth of ear protection options.



All power tools and hammering is loud! The Occupational Safety and Health Administration (OSHA) says that hearing protection should be worn if the level of noise in your environment is going to be at 85dB for any length of time. Suitable ear protectors will bring all of these sounds down to a safe level. (I realise that these are not all woodworking tools, but they are the only reliable figures I have. From these values you should be able to get a good idea of the volume of any tools you use regularly)

- Muffler 90dB
- Screw Driver 91dB
- Orbital Sander 92dB
- Drill 93dB
- Jig Saw 98dB
- Grinder 100dB
- Miter Saw 104dB
- Hammer Drill 105dB
- Circular Saw 106dB
- Reciprocating Saw 105dB
- Impact Wrench 107dB
- A hammer pounding a nail 120-140dB ref here (volume over 110dB can cause instant hearing damage)