

Why do my blades get hot so fast?

My name is Tim Love and I have been sharpening for 30 years. I will be writing a series of articles on various clipper blade topics. If you have a question or would like some more information on topic please, or have topic ideas please contact me at LovesSharpening@aol.com.

“Why do my blades get hot so fast now?” is the most asked question that I hear. I will cover some of the reasons for blades heating up and how to prevent it.

The biggest reason for hot blades is the clippers are faster now. Most clippers were about 2000 spm (strokes per minute), and now they are 4000 plus spm. This is like going from a moped to a high performance car. With the added speed you get more heat. What is the best way to keep two metal parts from heating up..... LUBRICATION! Keeping your blades clean and lubed will increase the life of your blades and clipper.

To help illustrate this point, rub your hands together slowly. You will start to feel a little warmth, but not anything unbearable. Now rub your hands together faster. The heat is more intense and is generated quicker. After a minute or so they start to feel sticky. Now if you put some lotion on and do this again your hands stay much cooler and are easier to rub to together. When I do this experiment with people they usually say “I use one of the cooling/lube/etc sprays.” That is great, but it is hard to have a product that can cool/lube/clean equally. The spray products are not intended to take the place of regular cleaning and oiling. They are to help you get through grooming that animal as quickly as possible.

The sprays naturally dry out the blade guide (plastic part on top of the blade). The sprays contain some type of cleaner, which is for removing oil, so all the oil is sucked out of the plastic blade guide. When this happens you will hear a high pitch squeak from the dry plastic rubbing on the steel. Also the blade will seem to cut slower from the increased friction. To get the guide roiled may take several drops of oil. Once the guide is roiled, the clipper will speed up again and the heat will be less. The greatest cause of blade heat is from the blade guide being dry and increased clipper speed.

The sprays also leave a sticky residue after the blade runs for a while. When the blade starts to slow down again and not cut, it is the spray getting sticky again. When you respray it, this loosens up the sticky stuff so the blade speeds up again. An example of this is when you spray a hot pan with cooking spray. When the cooking spray hits the hot pan it sizzles, then gets brown and sticky. The spray now has a crusty appearance and does not coat the pan as it should. When blades have dirt/gunk in them, this will cause the two cutting surfaces not to meet. If the blades are continually run in this condition the gunk bakes on the blades. A lot of blades are not really dull when a sharpener gets them, but are in need of a good cleaning. The sharpening process removes all the gunk and gives you two new clean surfaces that will mate correctly with less friction. Dirty blades get hotter faster, which can remove the “temper” of the blade. Temper is the hardness of the blade and its ability to hold an edge.

When the Super fast clippers (5-10,000 spm) first came out, I was getting blades in that were blue from the overheating of the blades and also had this brown tinge to them from the cooling sprays. The solution given to help with the extreme heating problem was to loosen the tension of the blade, which does help to generate less heat, but can create a new problem of blades “catching” the hair. By “catching”, I mean you make one swipe and the blade quits, then you slide the cutter to remove the hair stuck between the blade teeth. The reason the hair is “catching” is the blade is separating just enough to not allow the hair to cut, so it wraps around the teeth instead. Sharpeners do try to set the blades as light as possible, but not so light as to cause this problem. Another problem of too loose of tension is screws in the blades vibrate out because there is not enough tension to hold them securely.

As a blade gets hot, it can quit working, but will usually start working again once it cools off. The reason for this is when metal heats up it expands, which creates more friction. The clipper can't move the blade as fast so it seems to be dull. How many times have you handed a blade to the sharpening person and they test it and it works?

The easiest way to help with the blade heat problem is to have 3 or 4 of the same number blade and rotate them out when they get warm. Some people put them on a piece of tile, in a window or under a fan to let them cool while they continue to work. The customers I have that do this increase the time between sharpenings dramatically. Some people say it waste time to keep switching out blades, but when you look at how much slower and harder you have to work with hot blades it is actually faster.

The clipper vac systems really help keep blades cool, but they also give a false sense of not having to oil blades. Anytime two pieces of metal rub together they will need to be lubed. Think of the blade as a mini engine. If you don't keep the engine oiled it will seize up and be costly to replace or repair. By keeping your equipment well lubed and clean, will greatly decrease your maintenance cost and amount of sharpenings you should need.