

[Consultation]



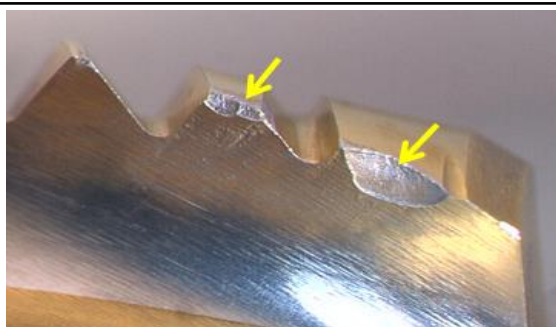
When it comes to tapping problems, I've heard that "flute chipping" or "chipping" are words used frequently. What is the difference between the two descriptions?

[Answer]

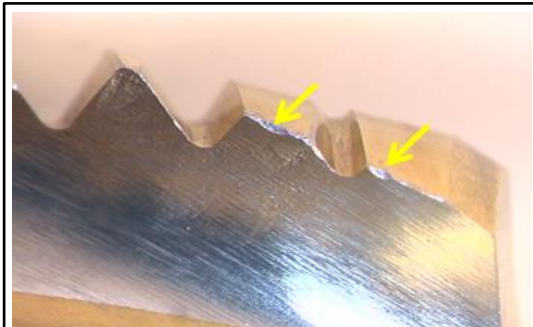
"Flute notching or flute chipping" is defined as a "large chipped area" that occurs in the threaded part of the tap and the cutting edge chamfer portion. Chipping is defined as "small chipping" that occurs in the tap's cutting edge chamfer area but it is difficult to describe because it is can be a complicated problem to solve. You shouldn't be too concerned when telling others about a chipping problem, as any chipping will cause poor threads and tap failure. I think chipping is a useful word to explain "large and small" tapping trouble shooting problems. Please refer to the pictures shown below.



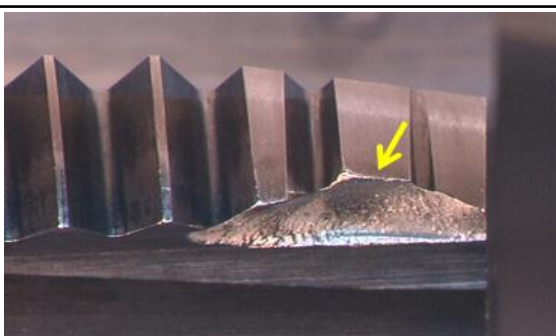
[Picture of actual flute notching or flute chipping and chamfer cutting edge chipping]



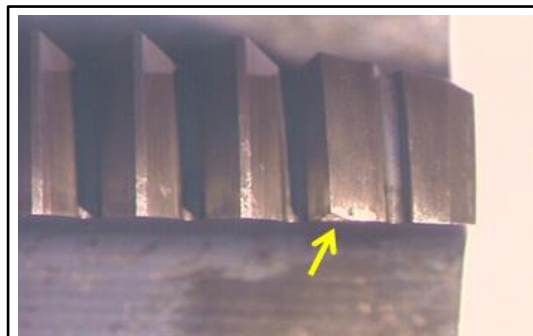
1. "Flute notching or chipping" occurred at the chamfer's cutting edge.



2. "Small chipping" occurred at the chamfer's cutting edge.



3. "Large cutting edge breakout" occurred in the chamfer portion.



4. "Minute chipping" occurred in the chamfer's cutting edge portion.

"Flute chipping" leads to a poor quality of machined threads or broken taps, so you need to be careful. There are several types of flute and cutting edge chipping problems but they all lead to poor threads or broken taps. "Flute chipping" or "chipping" happens for many reasons and adds an unreasonable force to that component being tapped. It is important to investigate the cause.



The picture to the right shows "flute chipping" that occurred in the complete threaded area of the tap. Basically, the thread cutting is done in the taps cutting edge chamfer area and not by the complete threaded area of the tap. It is rare that a higher cutting force will occur at the cutting edge from this condition. Most of the causes of flute chipping or chipping of the taps threaded area are from the metal chips or shavings coming off the taps cutting chamfer.

