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CROSS TOOLS Co. Trademark
Newsletter #12 2015

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How to Beat an Old Repair Problem Permanently

The Helicoil's Come Out ... What a Pain ! !

Two classic examples of this common thread repair glitch are sparkplug and sump plug thread repairs. Not that far back in history there weren't too many choices in thread inserts and helicoil type inserts ended up being the most easily available and the most commonly used. The problem is that threads like sparkplugs and sumps are done up and undone far more often than most threads. What's more they are often overtightened. Then, because the wire is flexible, whenever you tighten up on a helicoil, the insert flexes and begins to spread the "V" of the thread in the parent metal. After tightening a few times the "V" is spread far enough so that it doesn't touch the face of the helicoil. And, to stay firmly in the hole, a helicoil depends on friction between the face of the coil and the parent thread track. So, once the "V" is spread, there is almost no friction left to hold the helicoil in and . . . *BINGO* it begins to wind out.

So, What's the Solution?

The solution is to use a solid metal thread insert in these jobs or in any thread that is repeatedly done up and undone. Solid metal inserts are a much more permanent repair. We firmly recommend Time-Serts as a first repair in any sparpklug or sump plug thread repair. Time-Serts are as thin walled as helicoils and take up a minimum amount of "meat" in the parent part. You can also use thick walled inserts like Big-Serts or Loc-in-Serts. They are especially good where you have worse damage or an enlarged or out of shape hole. You'll find sizes and specs for all 3 types of inserts by going to the HOME page on www.crosstools.com.au. and using the product index. Big-Serts are in the drop down box beside the Time-Sert button and Loc-in-Serts are on the "Keensert Substitute" button.

This Month' s Teaser & Prizes

What was the name of the first wire thread type of insert? This was the forerunner of the helicoil style insert. CLUE the name can be found on our website. **PRIZES** *Email your answer to: news@crosstools.com.au. The first correct answer has the choice of a 6"/150mm coolant proof Starrett electronic digital caliper or a $100 Visa card to use on anything anywhere. The runner up will receive a Starrett dial indicator.*

What Size is a Helicoil Tap?

Ever wondered what size you're tapping when you use a helicoil tap? You might think it would be easy just to make it one thread size bigger. However, the whole point of using a helicoil or a Time-Sert [which is the same diameter as a coil] is to oversize as little as possible so that you use the minimum amount of area around the hole being repaired. The size of a helicoil tap is actually just one thread "V" depth bigger and not the next ordinary thread size larger. To explain, take a 6mm hole that needs repairing, the diameter of a helicoil tap to fit a 6mm insert is about 7.3mm and not as some people may think 7mm or 8mm. This is why these taps cost more. They are special taps made in smaller batches.

Innovative & Useful Tools

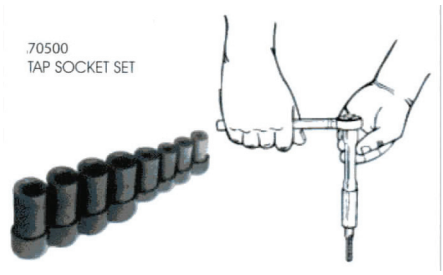
You may find some of these will make your job easier.

Pilot Nose Taps for Thread Repair

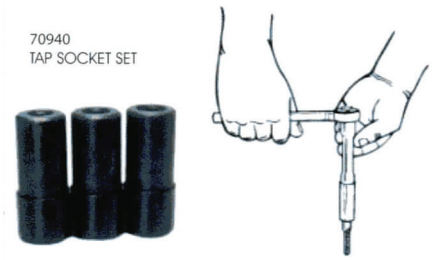
With these taps you don't even have to drill before you tap when you're doing a helicoil type thread repair. The nose is designed to engage with what's left of the stripped original thread. So, besides not having to pre-drill these taps give you a much better chance of being square with the hole being repaired.

Cross Tools has pilot nose taps available in quite a few sizes particularly the common sump plug threads from M10x1.5 through to M18x1.5 and some imperial threads as well. For special purpose applications we can make them to order - usually within a couple of days.

A Brilliant Aid to Tapping. These Tap Sockets Hold Your Taps Rigid



Now you can hold a tap rigid and straight in places where it's difficult to use a "T" handle tap wrench. These sockets clip onto the square of the tap and also fit closely over the shank so that the tap doesn't wobble around when it's used with a rachet wrench. You can get these sets in 2 size ranges. The smaller sized set covers taps 5mm to 12mm or 3/16" to 1/2" with a total of 8 sockets. The larger set pictured below contains 3 sockets to suit 16mm-20mm or 5/8"-3/4".



Flex-Hone Hint

To vary the cut and give a finer finish when you use a Flex-Hone, smear the bore you are honing with grease. This retards the cut. And just a reminder, never use kerosene or solvents as the lubricant when Flex-Honing this degrades the abrasive & leaves grit in the pores of the metal.