

Repairing 1/2"-20 UNF Tapped Holes with Emhart Industrial Heli-Coil Professional Repair Kit Number 5402-8

CAUTION

ANY CUTTING TOOL MAY BREAK UNDER IMPROPER USE. GOVERNMENT REGULATIONS REQUIRE USE OF SAFETY GLASSES AND OTHER APPROPRIATE SAFETY EQUIPMENT AT ALL TIMES IN THE VICINITY OF USE.

Drilling

Drill the damaged hole with the 33/64" dia. drill provided with the kit. Be sure to drill to adequate depth.

Tapping

Use the Heli-Coil tap supplied with the kit. Check the thread size on the shank to make certain the proper size is used.

Installation

1. Retract the mandrel and place the Heli-Coil insert into the tool.

The tang end goes toward the front of the tool.
2. Rotate the mandrel through the insert until the tang is fully engaged in the driving contour. Continue to rotate the mandrel until the insert is engaged in one or two threads in the body.
3. Place the tool squarely against the tapped hole and rotate the mandrel, holding the body with one hand until the top of the insert is 1/4 to 1/2 turn below the top surface.

NOTE: Do not hold the body tightly against the work surface. Allow the tool to float.

continued

Tang Removal

The tang must be removed to allow full passage of the screw into the insert.

The tang may be broken off cleanly at the notch in the bottom coil with the supplied T.B.O. rod. Place the rod into the assembled insert until it rests on the tang. Holding the tool squarely, strike it sharply with a hammer.

TOOLS & SUPPLIES REQUIRED



continued



A damaged 1/2"-20 TPI hole in a Bochum 84 Wheel Center.



Drilling out the damaged hole using the provided 33/64" dia. drill bit.



Re-drilled hole ready for tapping.

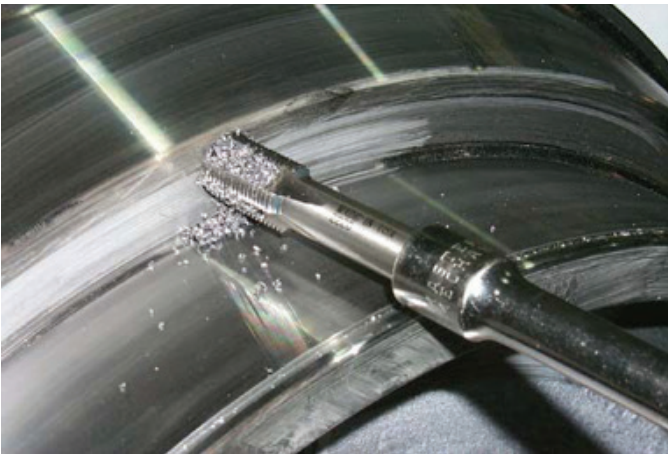
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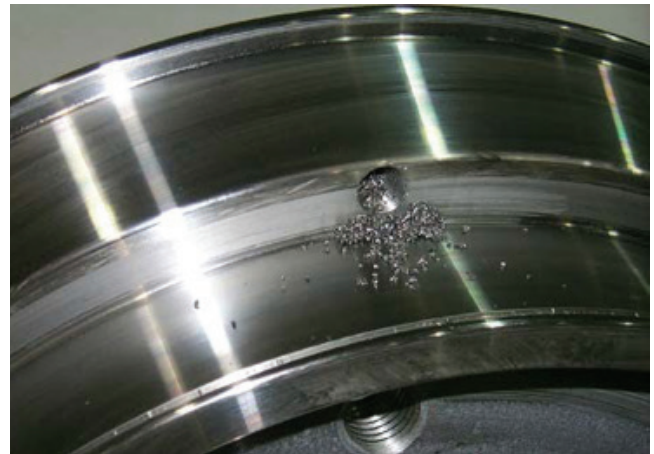
Start tapping without an extension for control.



Use an extension to clear the wheel center face.



Tapped hole. Be sure to clear away the metal chips.



continued



View showing a Heli-Coil inserted into the tool. Note that the tang of the Heli-Coil is in contact with the driving contour of the mandrel.

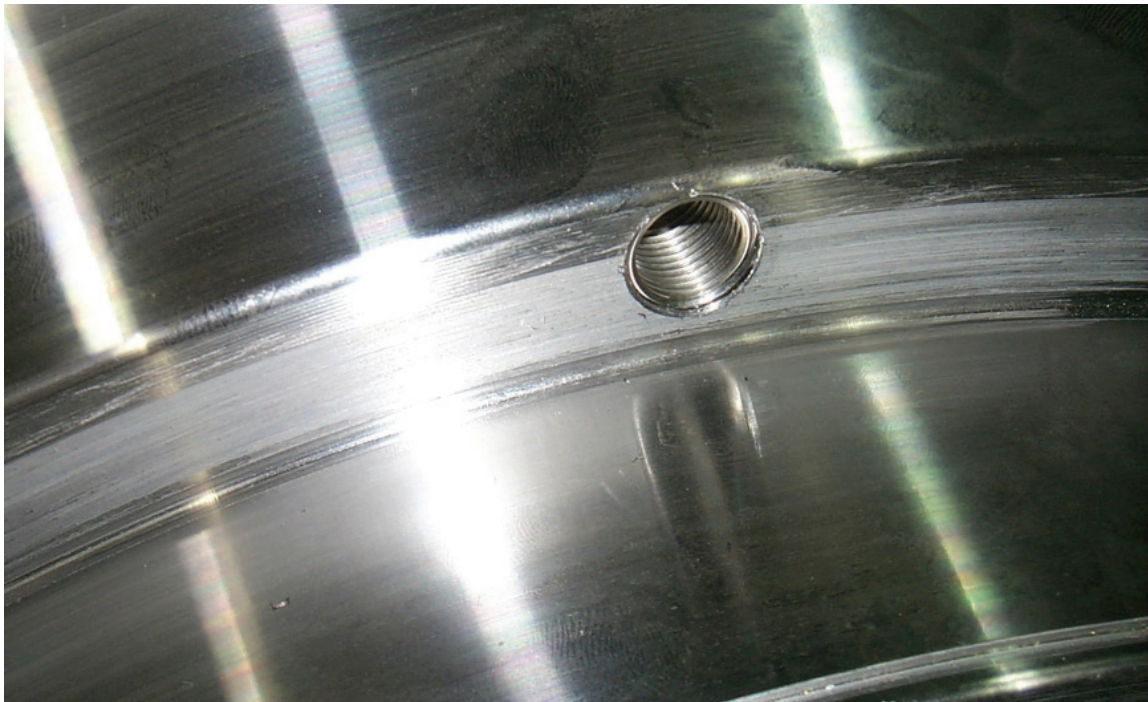


Lining up the Heli-Coil tool in preparation for inserting the Heli-Coil. Hold the tool loosely, allowing it to float.



Thread the Heli-Coil into the tapped hole until the top of the insert is $\frac{1}{4}$ to $\frac{1}{2}$ turn below the outer surface.

continued



Hole with Heli-Coil installed.

continued

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Using the steel rod (supplied with kit) to remove the tang from the Heli-Coil.



Test the threads with a 1/2"-20 cap screw.



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