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> Heli-Coil 5546-10 M10 x 1.5 Metric Coarse Thread Repair Kit User Manual

## Helicoil 5546-10

# Heli-Coil 5546-10 M10 x 1.5 Metric Coarse Thread Repair Kit User Manual

Model: 5546-10

## INTRODUCTION

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The Heli-Coil 5546-10 M10 x 1.5 Metric Coarse Thread Repair Kit is designed to repair damaged or stripped M10 x 1.5 metric coarse threads. This kit provides a durable and permanent solution for restoring threaded holes in various materials, ensuring a strong and reliable connection. It is suitable for automotive, machinery, and general repair applications.

## PRODUCT OVERVIEW

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The Heli-Coil 5546-10 kit includes the essential components required for thread repair:

- **12 Thread Inserts:** Precision-formed, corrosion-resistant stainless steel wire inserts.
- **Heli-Coil Tap:** A specialized tap designed to cut new threads for the insert.
- **Installation Tool:** Used to properly install the thread inserts into the tapped hole.
- **Instructions:** Complete, detailed instructions for the repair process.



Image: The Heli-Coil 5546-10 M10 x 1.5 Metric Coarse Thread Repair Kit, showing the tap, installation tool, and a selection of thread inserts.

## SAFETY INFORMATION

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Always observe the following safety precautions when using this product:

- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves, to prevent injury from metal shavings or sharp tools.
- Ensure the workpiece is securely clamped to prevent movement during drilling and tapping.
- Use cutting fluid or oil during drilling and tapping to reduce friction, improve cut quality, and extend tool life.
- Keep hands and fingers clear of rotating tools and sharp edges.
- Store tools in a safe, dry place away from children.

## SETUP

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Before beginning the repair, ensure you have all necessary tools and materials.

1. **Identify Damaged Thread:** Confirm the damaged thread is M10 x 1.5 metric coarse.
2. **Select Drill Bit:** Use a 13/32 inch (or equivalent specified in the kit instructions) drill bit to drill out the damaged thread. Ensure the drill bit is sharp and suitable for the material being drilled.
3. **Prepare Work Area:** Clean the area around the damaged thread, removing any debris or loose material.

## OPERATING INSTRUCTIONS

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Follow these steps to repair a damaged thread using the Heli-Coil kit:

1. **Drill Out Damaged Thread:** Using the specified drill bit (e.g., 13/32 inch) and a drill, carefully drill out the damaged thread. Drill straight and to the correct depth. Apply cutting oil during this process.
2. **Tap New Threads:** Insert the Heli-Coil tap into the drilled hole. Apply cutting oil and slowly turn the tap

clockwise, ensuring it remains straight. Back the tap out every half to full turn to break chips and clear debris. Continue until the tap has cut new threads to the required depth.

3. **Clean the Hole:** Remove any metal chips or debris from the newly tapped hole. Compressed air or a magnet can be used, ensuring no foreign material remains.
4. **Install Thread Insert:** Place a Heli-Coil insert onto the installation tool. Position the tang of the insert into the slot of the installation tool. Apply slight downward pressure and turn the tool clockwise to wind the insert into the tapped hole. Continue until the top of the insert is slightly below the surface of the workpiece.
5. **Break Off Tang:** Once the insert is fully seated, remove the installation tool. Use the tang break-off tool (or a punch) to snap off the tang of the insert. Ensure the tang is completely removed and does not obstruct the thread.
6. **Test Repair:** Thread the original bolt or a new bolt into the repaired hole to verify the thread integrity and fit. The bolt should turn smoothly without binding.

## MAINTENANCE

Proper maintenance ensures the longevity and effectiveness of your Heli-Coil tools:

- **Clean Tools:** After each use, clean the tap and installation tool to remove any metal shavings or cutting fluid residue.
- **Lubricate:** Lightly oil the tap and installation tool before storage to prevent rust.
- **Store Properly:** Keep all kit components in their original case or a suitable container to protect them from damage and loss. Store in a dry environment.
- **Inspect Inserts:** Ensure inserts are free from damage before use.

## TROUBLESHOOTING

If you encounter issues during the thread repair process, consider the following:

- **Difficulty Tapping:** Ensure you are using sufficient cutting oil and backing out the tap frequently to clear chips. Verify the drill hole size is correct.
- **Insert Not Seating Properly:** Check that the tapped threads are clean and free of debris. Ensure the installation tool is correctly engaged with the insert's tang.
- **Tang Not Breaking Off:** Apply a sharp, firm tap with the tang break-off tool. Ensure the tool is aligned correctly with the tang.
- **Repaired Thread Feels Loose:** Re-check the original bolt size and the insert size. Ensure the insert was fully seated and the tang removed. If necessary, the repair may need to be redone with a larger kit if the hole was over-drilled.

## SPECIFICATIONS

Specification	Detail
Model Number	5546-10
Thread Size	M10 x 1.5 Metric Coarse
Product Dimensions	4.7 x 0.7 x 3.5 inches
Item Weight	1.6 ounces
Included Components	12 Inserts, Tap, Installation Tool

UPC	025964100283
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## WARRANTY AND SUPPORT

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Warranty information for the Heli-Coil 5546-10 M10 x 1.5 Metric Coarse Thread Repair Kit is typically provided with the product packaging or can be obtained directly from the manufacturer, Heli-Coil. For specific warranty details, technical support, or replacement parts, please refer to the contact information provided by Heli-Coil or visit their official website.

For further assistance, you may also contact the retailer where the product was purchased.