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## Maserati Technical Bulletin

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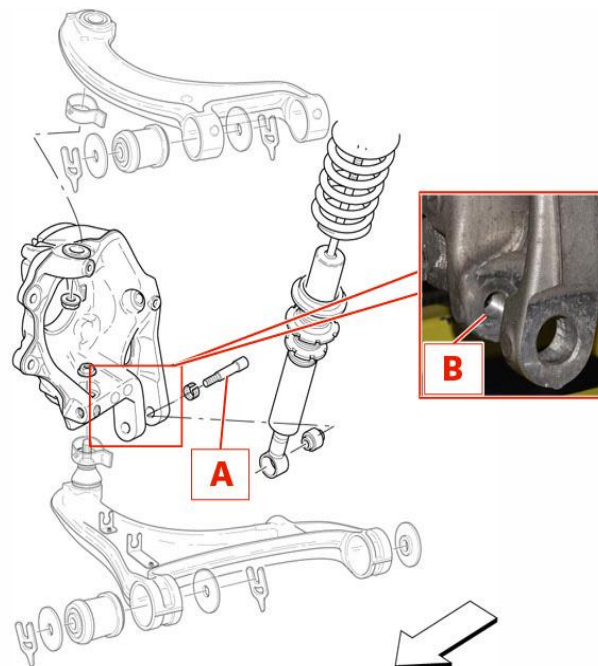
MASERATI

**Model Type:** GranTurismo Convertible, Gran Turismo, Granturismo MC, Quattroporte  
**Model Year:** All

**Subject:** Heli-Coil Installation Procedure into Rear Hub Holder

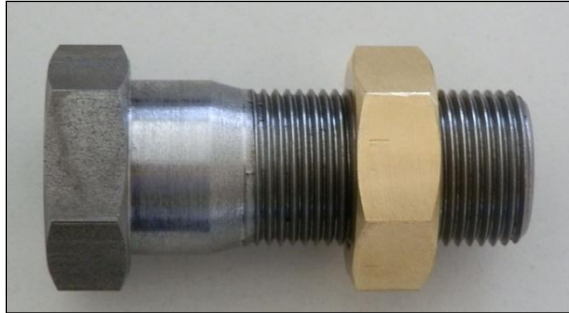
### DESCRIPTION

A new procedure has been developed to avoid unnecessary replacement of the rear hub holder as a result of damage to the bolt hole threads. Refer to the illustrations below when performing vehicle service requiring the removal of the car shock absorber. When threads (B) are found to be damaged and/or unusable during removal of screw (A), the following helicoil installation procedure will help avoid costly rear hub replacement.



## Tools Needed

- Special tool no. **900000223** “Helicoil Insertion Centering Tool”



- Drill bit diameter 14.50 mm with minimum useful length 110 mm;
- Drill;
- Sheet metal protection (approx. 100\*100mm).
- Heli-coil M 14x1.5; (commercially available e.g., HELICOIL PLUS BOLLHOFF)
  - Length: 14 mm (or 1.0D);
  - Material: X5CrNi18-10(AISI304); or X5CrNi17-7(AISI 302) – hardness HV0.2425Min;
- Tap for Heli-coil M14x1.5 – 6H;
- Heli-coil insertion tool; (commercially available e.g., HELI-COIL PLUS BOLLHOFF)
- 27MM Combination Wrench
- Channel Locks or equivalent
- Bushing driver sized 13/16”-15/16” ( Suggesting Mac Tools # BD3142-9)

Thread repair kit (commercially available e.g., SPIRALOCK) including:	
Professional insertion tool	
Male for support threading	
Heli-coil M 14x1.5.	

**IMPORTANT-** Each dealer will receive the following tools automatically from MNA Parts Operations:

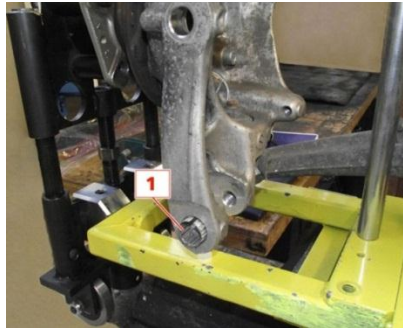
<b>Helicoil Insertion Centering Tool</b>	<b>900000223 X1</b>
<b>Power Coil Thread Repair Kit</b>	<b>2018249 X1</b>
<b>Drill Bit (14.5mm X 4 7/8 x 8 3/4)</b>	<b>2018250 X1</b>

**Note:** Service is carried out directly on the vehicle. However, in order to make these instructions easier to understand and follow, the hub holder has been placed on the bench.

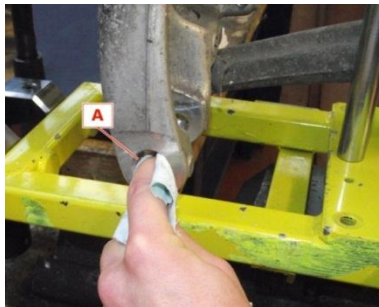
**Caution:** Ensure to wear suitable eye protection.

### Heli-Coil Installation Procedure

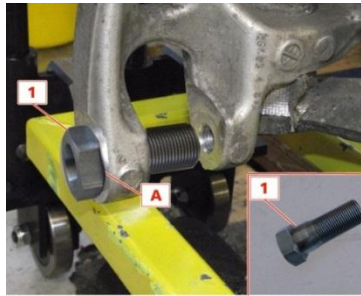
1. Remove metal ring (1) from rear hub holder unthreaded seat.



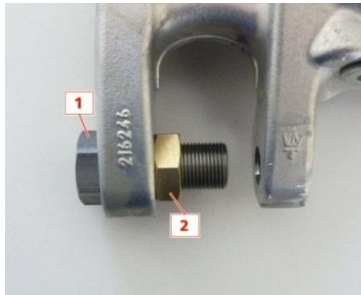
2. Using a clean cloth and a suitable degreaser, clean hub holder unthreaded seat (A).



3. Insert special tool No.900000223 "Helicoil Insertion Centering Tool" (1), without stop nut, inside the unthreaded seat.



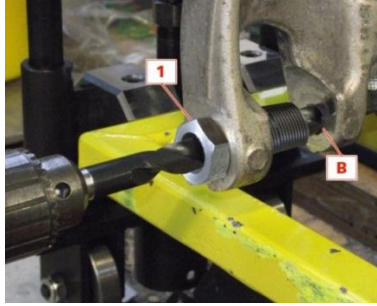
4. Install corresponding stop nut (2) onto the threading of special tool no. **900000223** “**Heli-coil Insertion Centering Tool**” (1), until contact has been made with the hub.
5. **Secure nut portion (1) using channel locks or other suitable wrench, then using a 27mm wrench, tighten nut (B). Do not over tighten this nut.**



6. Using commercially available cutting oil, lubricate the seat of hub holder bolt hole (B).



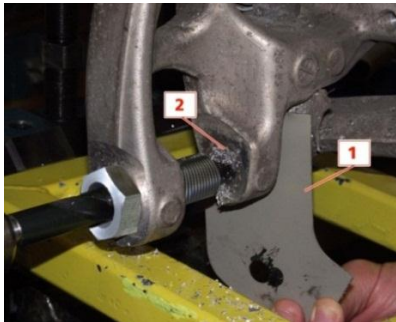
7. Using a suitable drill, install the drill bit supplied and insert it in through the **Heli-coil Insertion Centering Tool** No. **900000223** (1), until drill bit tip is fully contacting the bolt hole (B) as shown in the illustration below.



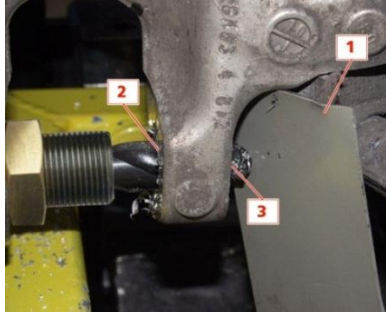
8. Using commercially available cutting oil, lubricate the drill bit at the points indicated (red arrows) in the illustration below.



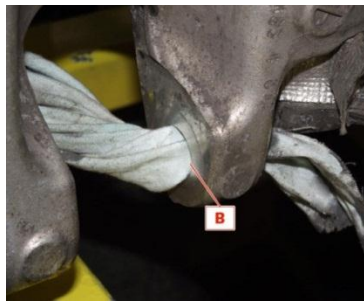
9. Place metal protection plate (1) between hub holder and lower lever, behind hub holder bolt exit hole (2)



10. Using the drill, remove damaged threading by drilling into nut screw seat (2) until the drill bit comes out of the other side by a few millimeters (3).



11. Remove drill and special tool **Helicoil Insertion Centering Tool 90000223**.
12. Using a suitable clean cloth, clean and remove any residual metal fragments from inside the bolt hole (B).



13. Install tap (1) included in the thread repair kit onto a suitable tap wrench (2) as shown.



14. Using a commercially available 13/16-15/16 bushing guide, insert the 13/16 end of the bushing guide into the unthreaded seat (A), lubricate the tap head then insert the tap in through the bushing driver as shown below in the illustration.



Bushing driver uses as a guide is Mac Tools item # BD3142-9.

Bushing driver size is (13/16-15/16)

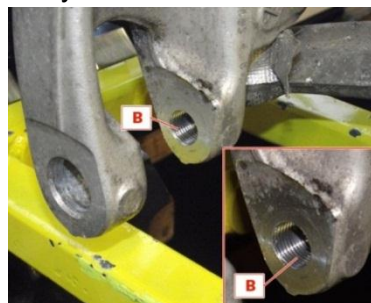


Side View of how the Tap will look passed through the bushing driver inserted into the non-threaded end of the knuckle assembly. Ensure Tap is level before beginning threading process

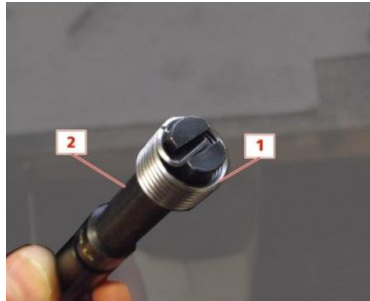
15. Tap hole (B) by rotating and pressing slightly on the tap, until it comes out by a few millimeters on the other side as shown below.



16. Thoroughly clean and remove any residual metal from the bolt hole (B).

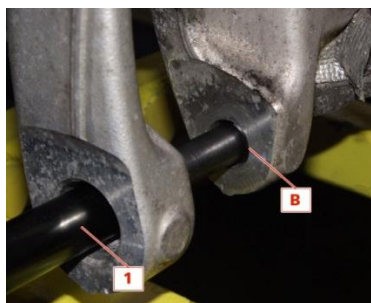
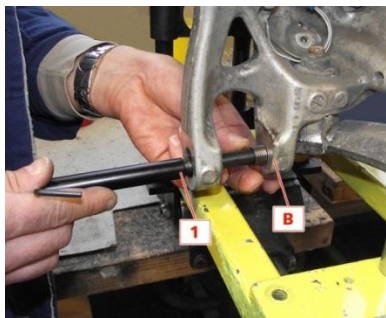


17. Install Helicoil (1) onto the manual insertion tool (2) included in the thread repair kit as shown.



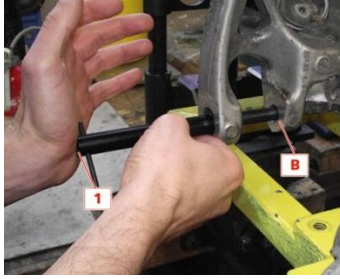
18. Ensure that the Heli-Coil is inserted enough that it sits flush with the outside edge of the threaded section.

- With the relevant Helicoil fitted correctly on the insertion tool, position the tool on nut screw (B) opening, and turn slowly, making sure that the Helicoil is fitted correctly inside seat (B) and does not stick out.

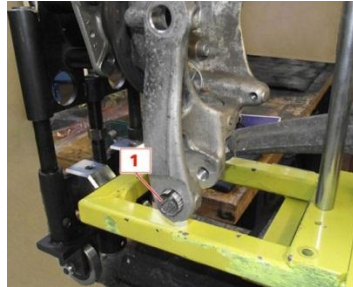


- Make sure that Helicoil (B) is inserted correctly, checking that it adheres perfectly to the threading.
- If the Helicoil is not fitted correctly, remove it and repeat the insertion procedure.
- Then, break Helicoil driver:
  - Using a hammer or the palm of your hand, hit firmly but not too hard on the head of insertion tool (1).





- Make sure that the Helicoil driver, previously broken, is not stuck inside seat (B).
- At the end of the procedure, replace metal ring (1) inside the unthreaded seat of hub holder



- Thread repair procedure is complete.
- Reassemble suspension corner according to workshop procedure and torque requirements

## SERVICE TIME

- **Part No.**
  - 6.20.007 Rh.
  - 6.20.008 Lh.
- **Operation Code:**
  - 6.20.007.9 Rh. Rear rh hub holder - Shock Absorber Mount Helicoil Assembly (1.00 h).
  - 6.20.008.9 Lh. Rear lh hub holder - Shock Absorber Mount Helicoil Assembly (1.00 h).