

# Service-Information Motorcycle



BMW NA  
Service Department

Group: 11  
Engine

June 1991  
11 047 91  
(2461)

For USA Only

## Repairing Cylinder Studs - All R-Model Engines

**Situation:** Cylinder Studs may pull (strip) from the engine housing due to:

- Over-torquing
- Torquing while the engine is warm
- Accidents where the stud is bent or pulled

In these cases, the thread in the engine housing must be repaired.

**Remedy:** A Heli-Coil can be fitted when these threads are stripped/damaged.

**Note:** Our factory has been installing Heli-Coils on the front left-hand thread for some time now.

**Torquing Cylinder Studs:** The correct specification is 25 +/- 2 ft/lb. This does not mean torque to 27 ft/lb.

**Note:** Torque wrenches should be calibrated yearly.

**Tools:** A kit containing the following is available through normal parts channels under Part No. 88 88 6 112 730:

- 10 mm Heli-Coil tap
- Heli-Coil installation tool
- A drift to break the installation "tang" off the Heli-Coil.

**Parts:** Heli-Coil inserts are available from our Parts Department using Part No. 11 11 1 338 630 (1 ea.)

These Heli-Coils are encapsulated with Loctite. They are also longer than most Heli-Coils.

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Please initial and route to the following before filing				
Service	Parts	Sales	Warranty	Technicians

**Parts:**  
Contd

Normal Heli-Coil has 9 coils. The BMW Heli-Coil has 12 coils. The additional coils will add strength to the thread repair.

**Procedure:** Important:

- Seal the Oil-Feed Bore, which is approximately 2-5 mm diag. - with a suitable plug or match (if taping upper studs).
- Using the Heli-Coil tap, thread the hole.  
**Note:** Predrilling is not necessary if the threads are completely pulled out.
- Grease the flutes of the tap and place rags in the crankcase opening to secure any chips.
- Clean the newly-cut threads with contact cleaner.
- Remove the seal from the Oil-Feed Bore.
- Using the Heli-Coil installation tool, screw in the Heli-Coil to 2 mm below the matching surface of the engine housing.
- **Ensure that the Oil-Feed Bore is not blocked.**
- Remove the installation tool.
- Using the drift, break off the tang used to screw in the Heli-Coil (retrieve tang with magnet or probe).
- Screw in a new cylinder stud.

**Note:** Using the original stud may cause the Heli-Coil to strip due to stretched stud threads.

**Caution:** Use extra caution to ensure that when tapping the Heli-Coil the tap is positioned parallel to the other studs, otherwise the threaded coil may be angled.

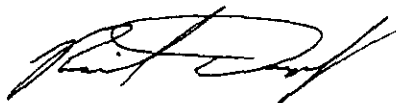
**Warranty Status:** Since over-torquing is considered abuse or misuse, we will not accept claims. However, if you feel that the circumstances warrant our review, please call your Technical Services Manager.

Very truly yours,

BMW of North America, Inc.



Frank Stevens  
National Service Manager



Richard Dampf  
National Technical Manager

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