



Stripped Spark Plug Threads On 1991-2003 Ford 4.6 & 5.4L Engines

The AERA Technical Committee offers the following information regarding stripped spark plug threads on 1991-2003 Ford 4.6 & 5.4L engines. It has been reported that spark plug threads on the subject engines have become damaged at a rate that is significantly higher than on other aluminum cylinder heads. It appears the number of threads used to retain the plug (as few as four) may be insufficient for continued long time use.

Since that design may limit the possibilities of different repairs, a solid insert offers the best opportunity of continued retention in the cylinder head casting. AERA is currently aware of a hard anodized aluminum insert that is currently being reviewed by Ford Motor Company for an authorized repair. This repair has been available for more than a year and has proven to be very durable.

These repairs are best made with the cylinder heads removed from the engine but reports of in-chassis repairs have been made. Some AERA members report the engine may be removed and repaired in a timlier manner than trying to make the repairs with the engine installed.

Most often, spark plugs remain installed in the engine for years at a time. Over time the threads may become almost locked to each other and the damage may occur when the plugs are hastily removed or reinstalled. It is suggested to always remove the spark plugs with the engine at room temperature after allowing a penetrating fluid to soak the threads.

It's also been reported plugs that loosen while installed may "blow out" taking the threads with them. This is one critical instance when the exact torque value of 11 ft/lbs (14 Nm) is extremely important.

Caution: Inspect all spark plug threads when rebuilding these cylinder heads.