



ATD-5410 Three Valve Ford Triton Insert Kit

The Three Valve Ford Triton Insert Kit will repair the threads in cylinder heads that have broken spark plugs in the following engines of the Ford family: 3-valve 5.4 L and 6.8 L engines built before 10/9/07 and 3-valve 4.6 L engines built before 11/30/07 found in many 2004–2008 Ford, Lincoln and Mercury vehicles.

***Not intended for late production '08 models and up, as they may use a special M12 x 1.25 Taper seat plug.**

Tools required for this repair include:

Three Valve Ford Triton Insert Kit

JB Weld or similar product

Air Gun

Quality Air wrench

Borescope

Spark plug socket and extensions

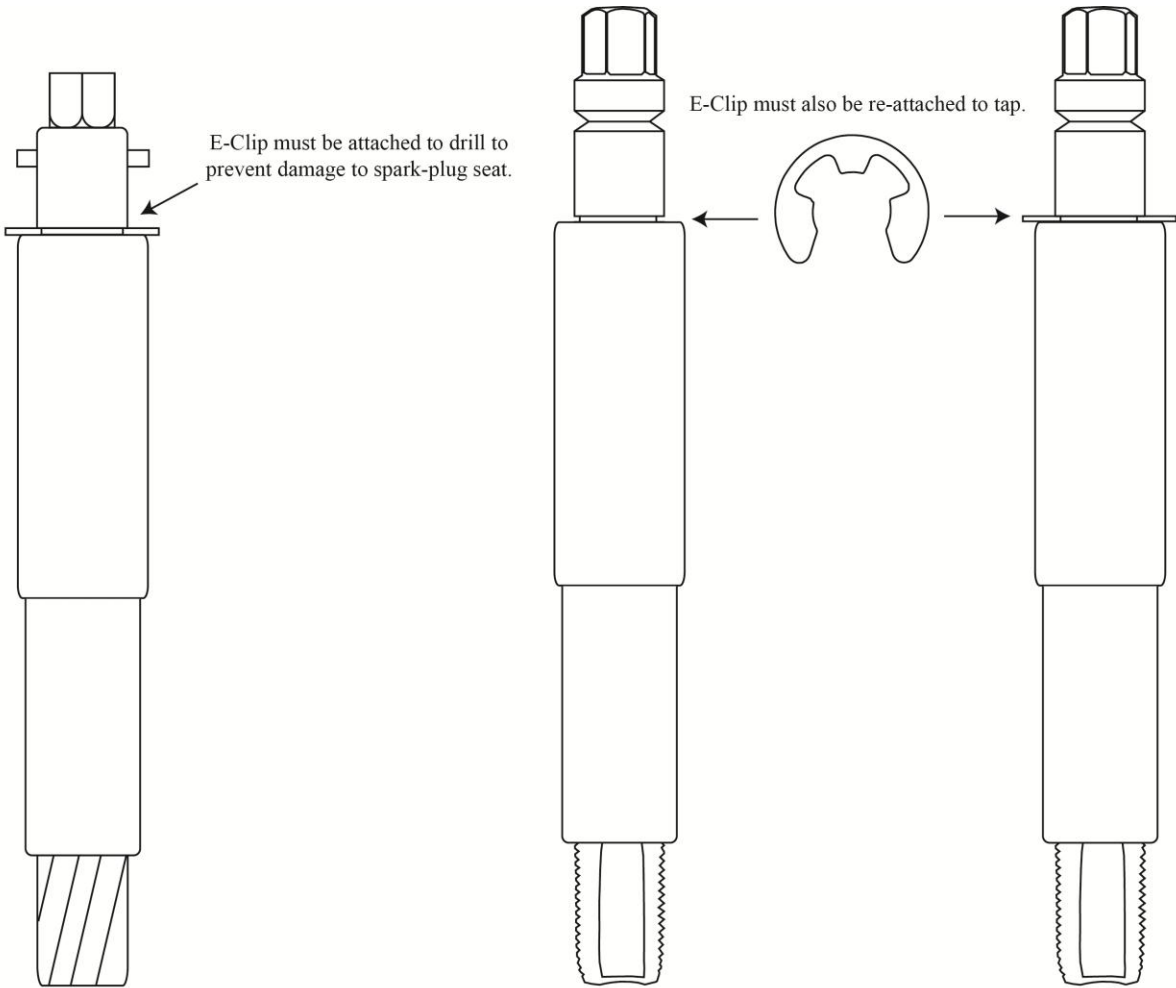
Shop rag

Bearing grease

Safety Glasses

- Ensure all broken parts of the spark plug are removed. Use bore scope to determine that the cavity is clear of all debris or broken plugs.
- Insert guide into the spark plug chamber. Coat Core drill with bearing grease and insert into guide. (Make sure E-clip is securely positioned on Core drill. This is a critical step in this procedure to ensure proper positioning of the new insert. **See Illustration 1.**) CAUTION: WEAR SAFETY GLASSES.
- Using a good quality air wrench, carefully and slowly drill until E-clip touches top of guide. Slowly remove Core drill. Most, if not all, shavings will be removed once the Core drill is removed. Use an air gun to blow out any remaining shavings. CAUTION: ALWAYS WEAR SAFETY GLASSES WHEN BLOWING OUT THE CYLINDER.
- Remove E-clip from Tap (**See Illustration 2**). Coat Tap with bearing grease and insert Tap through bottom of guide until tap threads are completely inside guide. Replace E-clip (**See Illustration 3**). **Warning: Failure to replace E-clip can result in cylinder damage!**
- Insert Guide/Tap assembly into spark plug chamber.
- Using the air wrench, carefully and slowly tap until E-clip touches top of guide. Most, if not all, shavings will be removed once the tap is removed.
- Remove Guide/Tap.
- Using an air gun, carefully blow all debris out of cylinder. CAUTION: WEAR SAFETY GLASSES.
- Use bore scope to make sure all debris is removed from the cylinder.
- Screw insert on the Insert Plug. Spread JB Weld or another heat resisting metal bonding agent on the outside threads of the insert. Do not use a quick setting product.
- Using a ratchet and extension, screw insert into new spark plug threads. Tighten insert until snug. With a quick left turn of the ratchet, break the Insert Plug free from the insert. Use caution that you do not also turn the insert. You may also allow bonding agent to cure prior to Insert Plug removal. The insert is now a permanent part of the head.
- Using the appropriate spark plug socket, screw spark plug into new insert and torque to manufacturers specifications.
- Allow bonding agent to fully cure before running engine.
- Reconnect coil and boot. The job is now complete.

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E-Clip must be attached to drill to prevent damage to spark-plug seat.

E-Clip must also be re-attached to tap.

Illustration 1
Core Drill with E-Clip stop in place.

Illustration 2
Tap with E-Clip removed for insertion into guide.

Illustration 3
Tap with E-Clip in place. Ready to tap new threads.



PARTS LIST

ATD5410 - Ford Triton 3 Valve Repair Kit

