TIME-SERT® FORD TRITON

SPARK PLUG REPAIR KIT P/N 5553

– WARNING –
Cutting tools may shatter if broken. The wearing of safety glasses is required in the vicinity of their use.

– CUTTING FULID –
A Cutting Fluid is necessary for reaming and tapping. (WD40)

– AIR RATCHET –
Use of an air ratchet at slow speed will help speed up operations on counterbore and reamer.

1	55511	Wrench
1	55512	Reamer
1	55513	Tap
1	55514	Driver
1	55515	Setting tool
1	55516	hex key 1/8
1	55518	Triton Counterbore
1	51487	Hex key 3/16
1	6010	Oil
1	6020	Sealer
5	51459	Triton Inserts

Stop: Check that the valves are not open!

The only 100% way to know the valves are not open is to remove the valve cover and inspect the cam, making sure that it is not depressing the valves on the damaged sparkplug hole.

This kit is **not recommended** for use on holes larger than .640 inches or 16.3mm.

An optional way to check that the valves are closed. This is a 2 man job.
Have someone turn the engine over by hand with a 18mm socket from the front of the engine. Turn the engine over until it is going up on the compression stroke. Place your thumb at the top of the sparkplug hole at the same time to block off the air. When you feel the engine compression stop pushing air against your thumb the piston will be top dead center. Turn the engine a little more to be on the down stroke, both valves should be closed at this point, and the piston should be out of the way.

Instructions are using a block of aluminum, which makes for better viewing. This repair can be done without removing the heads.

1) Using the wrench provide, tighten the setscrew to secure the counterbore in place. Counterbore the hole to the full depth permitted by the tool P/n 55518 picture A: until the counterbore bottoms out on the hole and spins freely. This tool will stop cutting when it hits the original taper seat in the head.

2) Place the Reamer into the square of the wrench and tighten the setscrew to secure the reamer in place. Picture B:

A:

Note: some engines will require more aluminum to be removed than others. E.g Romeo 2001 and up **1L2E heads**

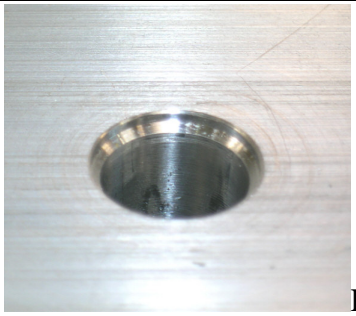
B:

Tip: Packing the flutes with grease will help to catch chips.

Ream the hole picture C: until black "Stop collar" touches head. This will create the 45 degree countersink seen in picture D:

When you start getting close to the stop collar coming in contact with the head, you will want to clean the chips from the reamer so you have a positive stop on the head without having any chips interfering. The reamer should spin very freely when the collar touches the head.

C:

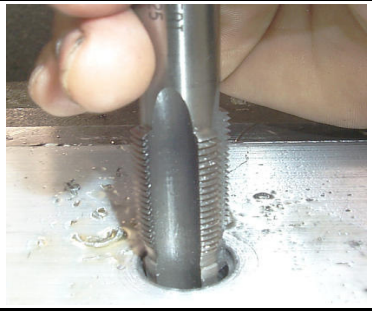


D:

3) Tap the hole.

Tap the hole with the wrench provided. There is a pilot at the front of the tap to help guide it straight into the hole.

Use contact or brake cleaner to thoroughly clean out any remaining chips and oil.



Mechanics Tip 1: Packing the flutes with grease will help to catch any stray chip from going into the cylinder.

Mechanics Tip 2: Using a shop-vac with a thin hose taped to the nozzle is helpful removing any remaining chips in the cylinder.

4) Setting tool.

A: Screw the setting tool into the insert.

B: Then lightly tighten the socket cap screw.

A:

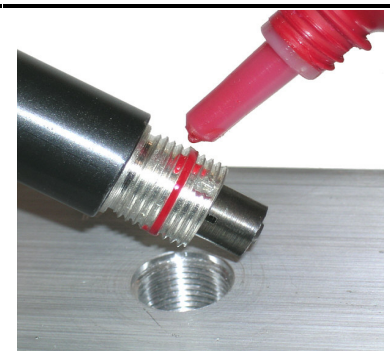
B:

C: Using the wrench provided place the setting tool into the wrench.

D: Place Lock-tite around the middle of the insert. and into the clean prepared hole.

Screw the insert into the hole until the flange of the insert is seated to the head. This is approximately 20 foot pounds.

C:



D:

E: Hold the wrench, and in a counter-clockwise rotation, untighten the cap screw with the allen key provided, This will allow the setting tool to release itself from the insert.

F: You can now remove the setting tool from the insert.

E:

F:

5) Insert driver tool

Using the wrench provided, place the driver tool into the square and tighten the setscrew to secure the driver in place.

Oil the bottom threads of the insert driver with a few drops of driver oil.
Note: optionally you may use 30wt motor oil.

Screw the driver into the insert. The driver will cold form the last few threads of the insert. This is approx. 10 full turns.

While screwing the driver into the insert you will feel the driver start to tighten up, with a little more power continue through the insert until it loosens up.
Remove driver, repair is complete.