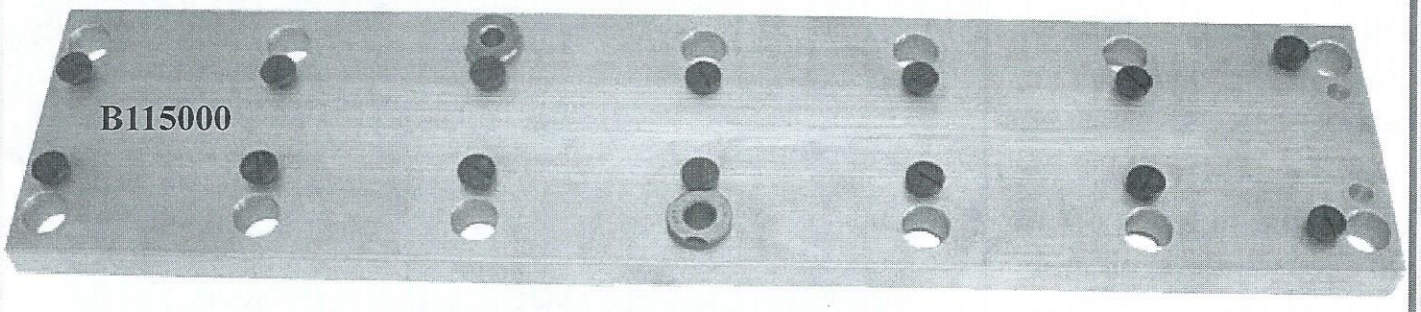
B115000 & TS1015 Instructions

BMW headbolt thread repair for M52TU, M54 & M56 Inline 6 engines



TS1015

TS10155

<u>Items needed for repair</u>:

B115000 headbolt thread repair jig
TS1015 Time-sert thread repair kit
TS10155 10x1.5x24.5mm Time-sert inserts x14 (recommend 16 incase 1 gets damaged/lost)

- we also carry double oversize casesaver kits and bulk insets

The B115000 jig, and the TS1015 kit allows you to drill and tap the engine block with perfect alignment. No misaligned holes, and the Time-sert inserts are the only recommanded solution over replacing an expensive block.

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Place the dowel pins A (circled in red) into water jackets B (circled in blue), pictured in illustration #1.

It may be necessary to clean out the water jackets on some engine blocks.

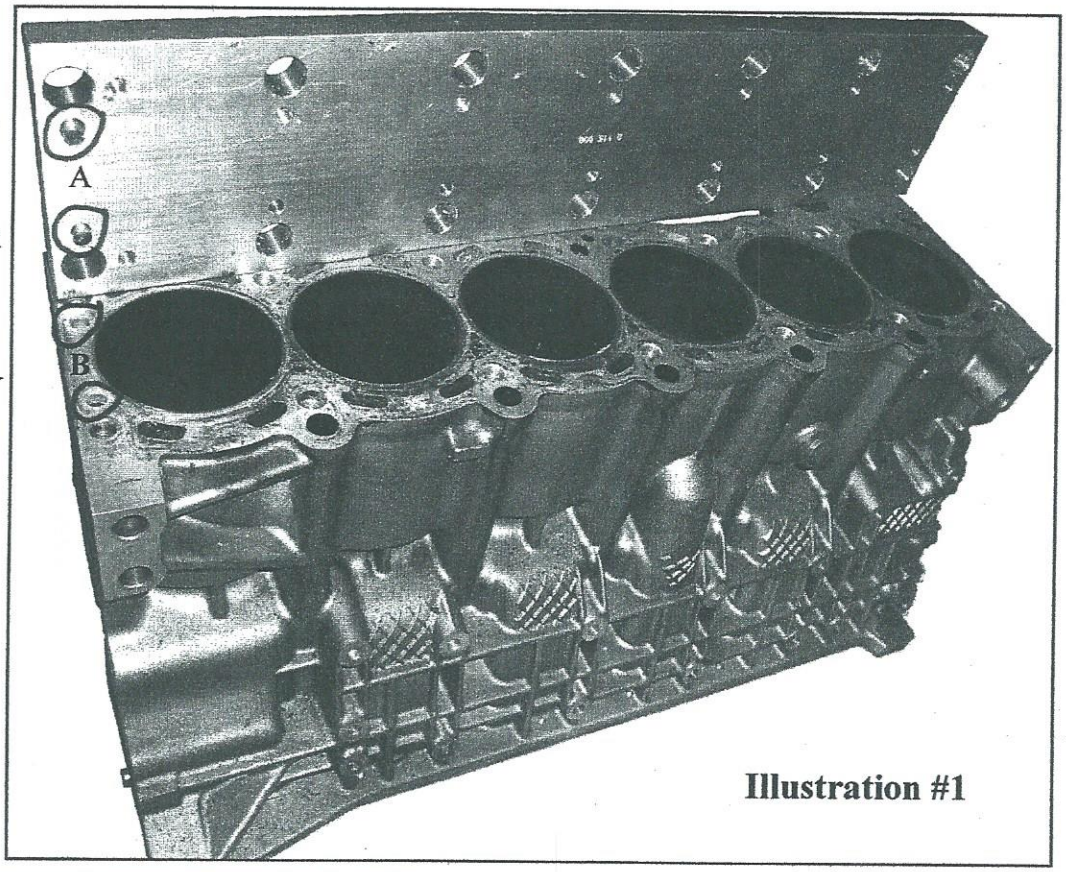

Illustration #1

CAUTION

Make sure to block off all of the cylinders, oil and coolant passages before any of the repairs are performed to the engine.

ATTENTION

Use a vacuum to clean up metal debris. Do not use shop and or compressed air.

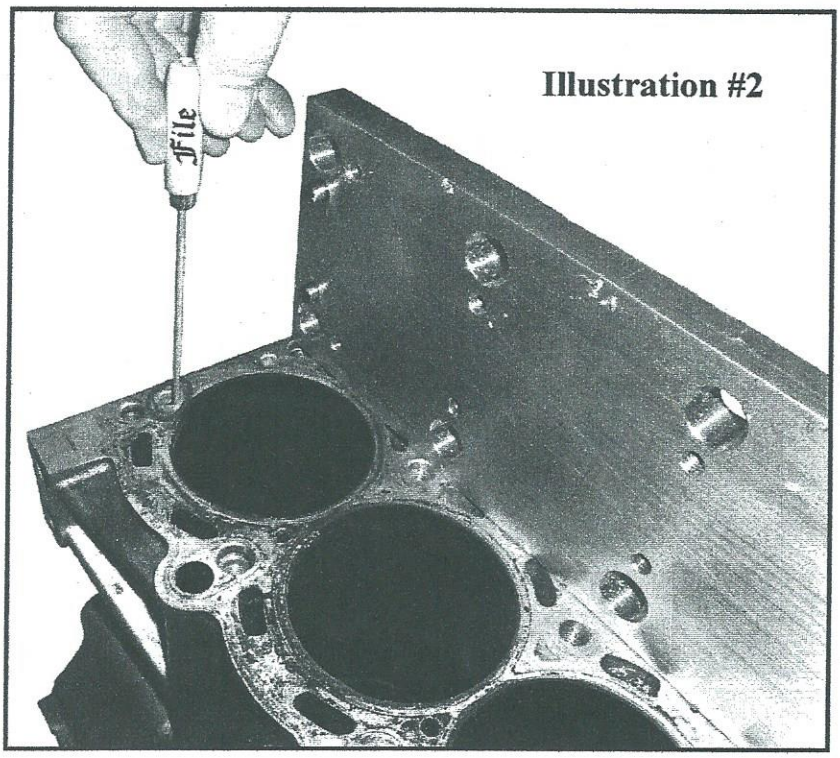

Illustration #2

If necessary, some engine blocks need to have the water jackets cleaned out with a round file as pictured in illustration #2.

Make sure to only remove enough material for the dowel pins to fit snugly.

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Jig locating bushings C (circled in red) in illustration #3.

Used to locate the other end of the jig

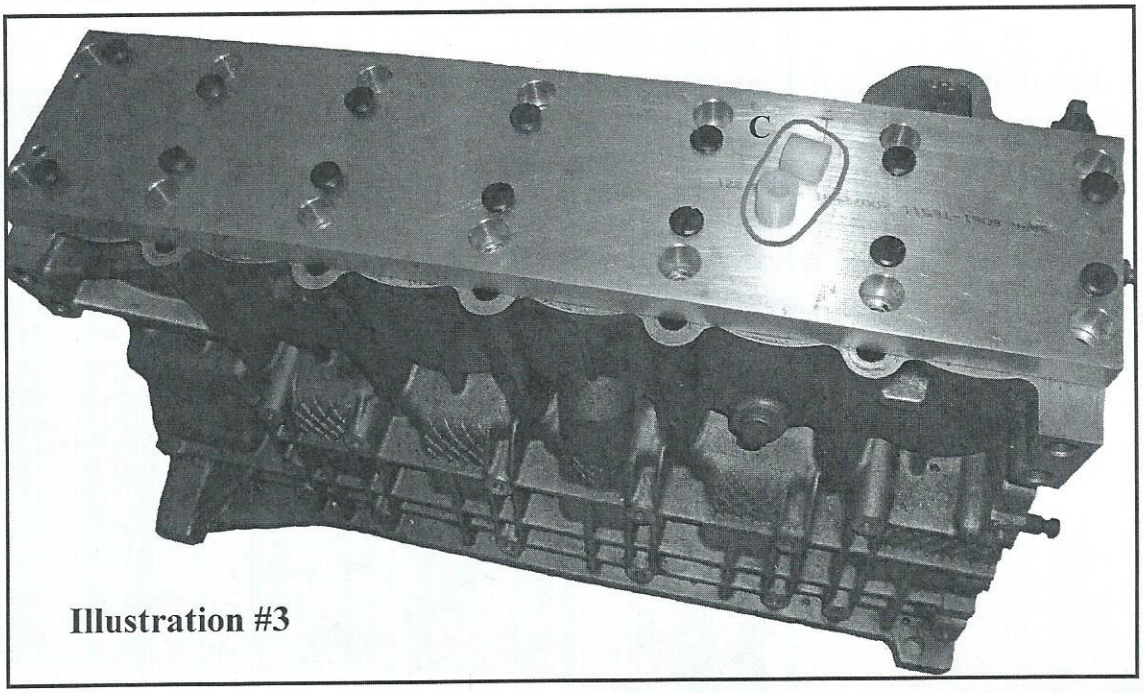

Illustration #3

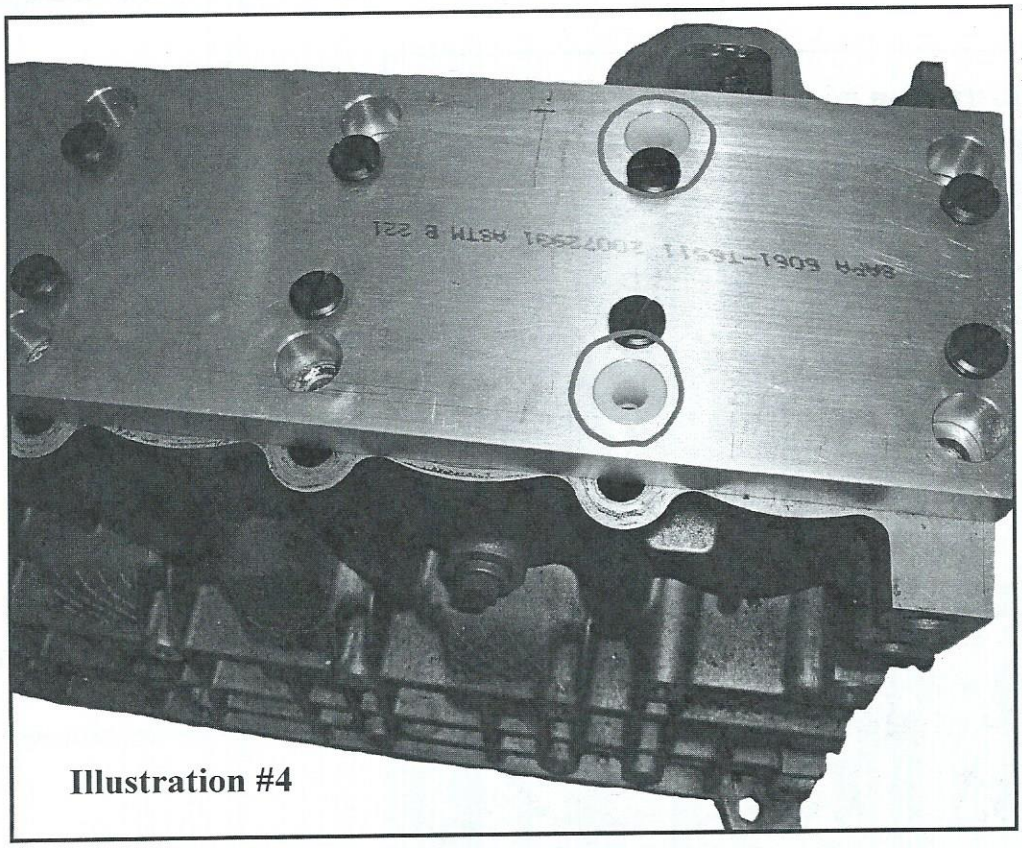

Illustration #4

To ensure alignment, install the plastic bushings (circled in red) on the other end off the jig using short 10x1.5mm bolts (not included), see illustration #4.

It will be necessary to relocate the bushings when it is time to repair those threads.

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Install the Time-sert drill bit D and tap E in to the appropriate metal bushings, as shown in illustration #5.

Illustration #5

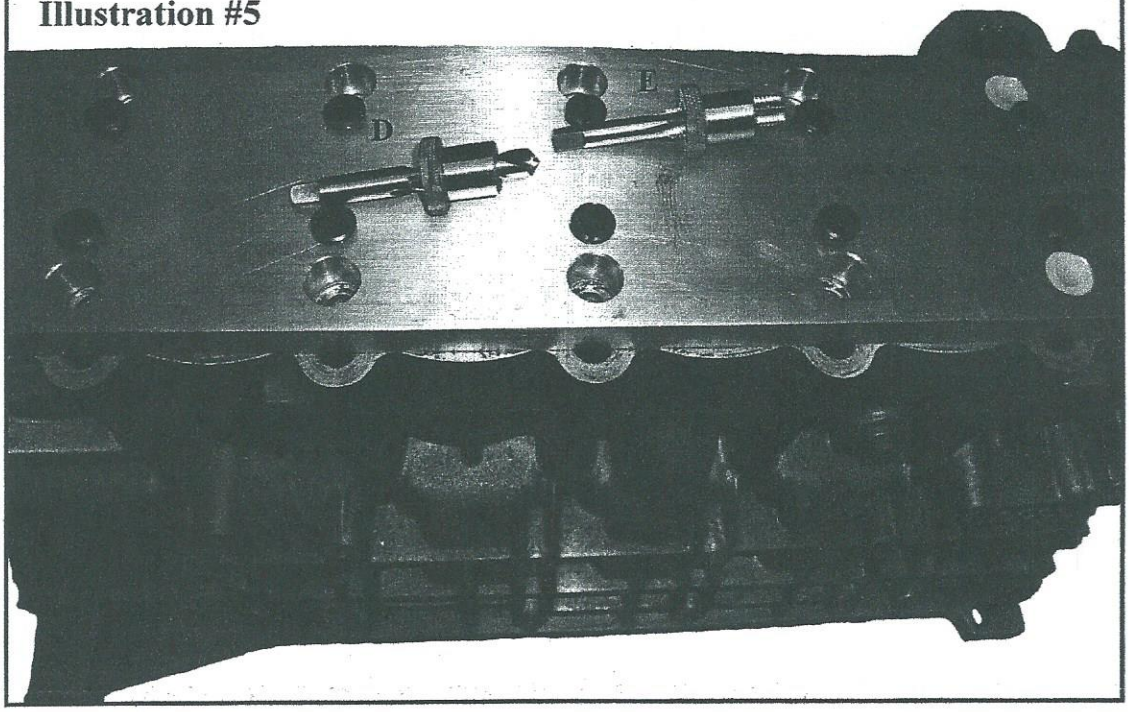
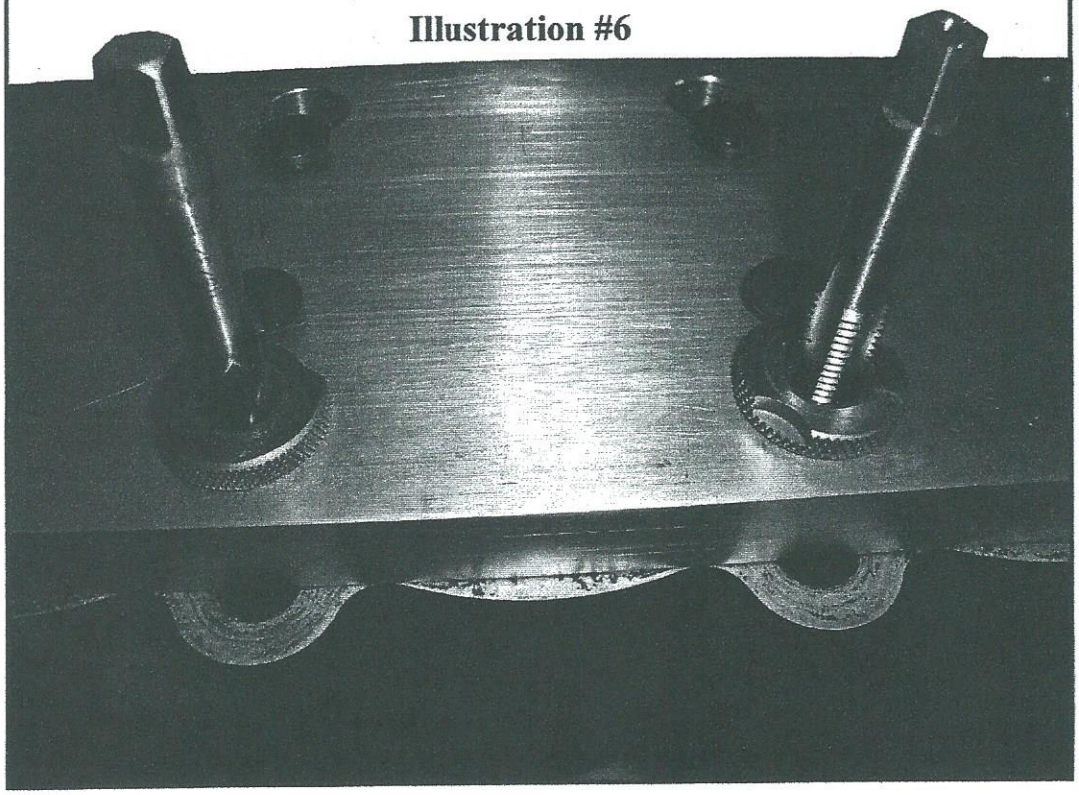


Illustration #6



Illustrated to the left are both the Time-sert drill bit D and tap E installed in to the B115000.

First, drill out the headbolt holes using the Time-sert drill bit installed in the B115000 as in ilustration #6.

Refer to the Time-sert instructions included in the Time-sert kit.

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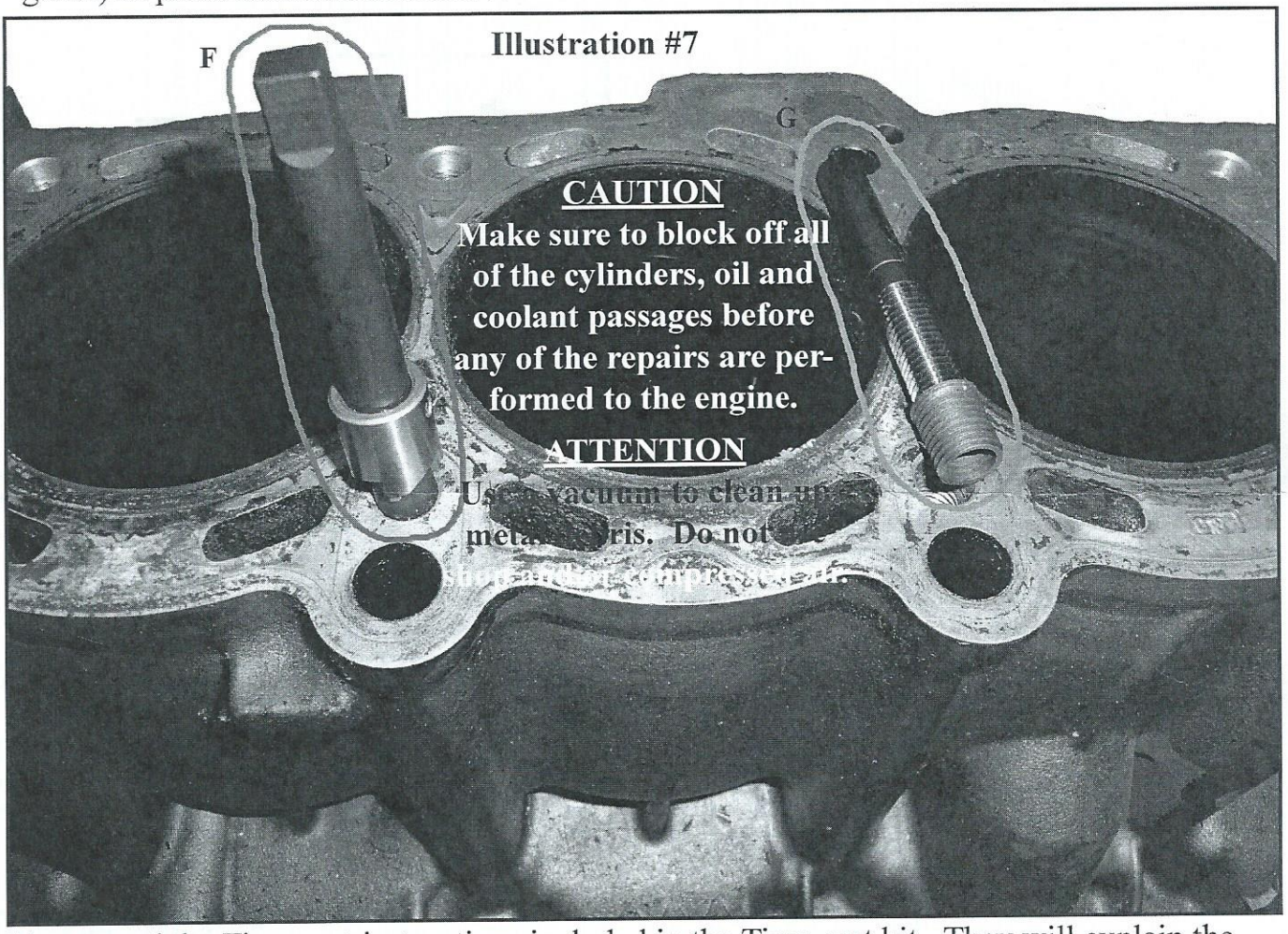
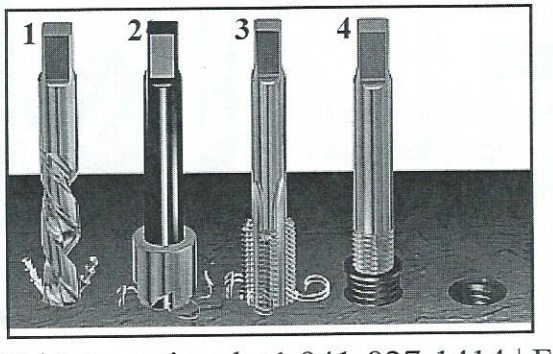
- After the headbolt holes have been drilled out, remove the plate and counter bore the head bolt holes as pictured in illustration #7. Time-sert counter bore tool F (circled in red).
- Next, tap the headbolt holes using the Time-sert tap E as pictured in illustration #6.
- Now you can install the Time-sert inserts using the Time-sert installation tool G (circled in green) as pictured in illustration #7.

Illustration #7



Please read the Time-sert instructions included in the Time-sert kit. They will explain the drilling, counter boring, tapping and installing of the Time-sert inserts .

Quick Guide



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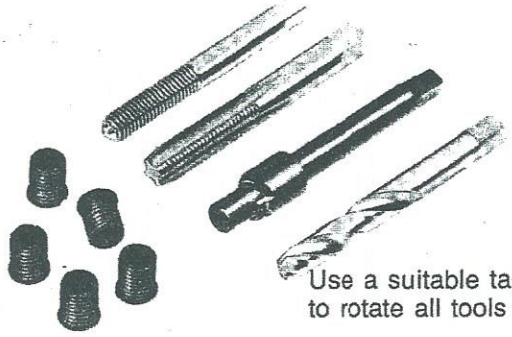
TIME-SERT®
THREAD REPAIR KIT

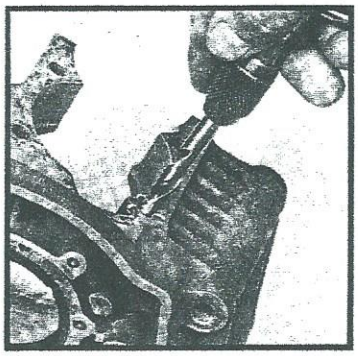
— WARNING —

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



Use a suitable tap wrench to rotate all tools

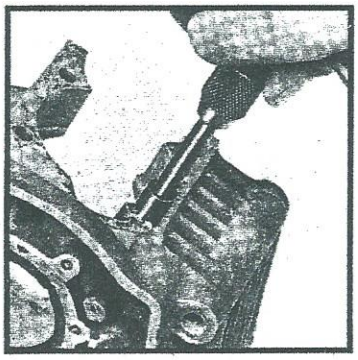
INSTRUCTIONS



Use of a cutting fluid is rcommended for drilling, counterboring and tapping.

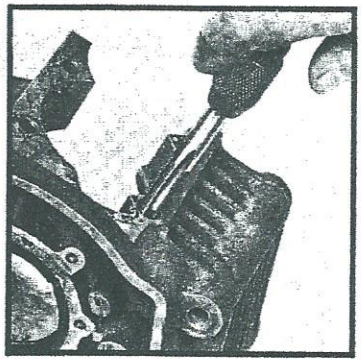
STEP 1

Drill out old threads keeping drill square to the surface of the hole.



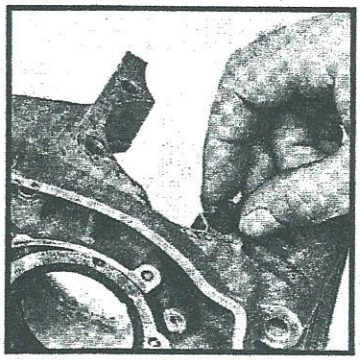
STEP 2

Counterbore the hole to full depth permitted by the tool.



STEP 3

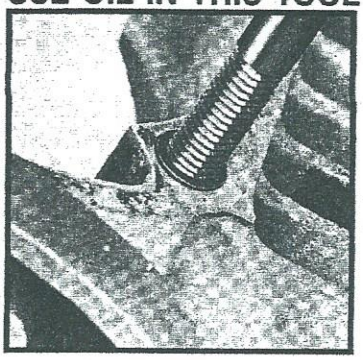
Tap threads into full depth of the drilled hole. Hold tap square to the surface of the hole.



STEP 4

Blow Chips out of the hole.
Using fingers, screw an insert a few turns into the tapped hole.

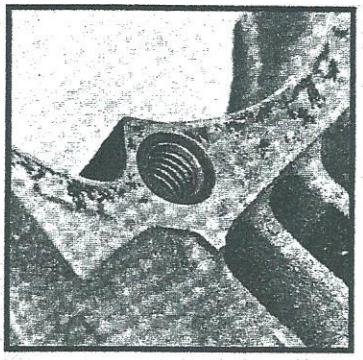
USE OIL IN THIS TOOL



STEP 5

OIL THE THREADS
of the Insert Driver.
Using a tap wrench, screw the driver into the insert. When the head of the insert is seated the driver will tighten up. Using a little more power continue to rotate the tool until it loosens up.

COMPLETED REPAIR



The bottom inside incomplete threads of the insert are now fully formed. This has expanded the bottom few out-side threads into the tapped hole, thus locking the insert in place.

If for any reason an insert is to be removed, use a standard **EZ** out tool.

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