SPX KENT-MOORE

J 42385-500
CYLINDER HEAD/MAIN BEARING CAP BOLT THREAD REPAIR KIT
4.0L/4.6L Engines

TIME-SERT®

KIT CONTENTS

TOOL	HEAD BOLT	MAIN BOLT
Insert	J 42385-507 M11 x 1.5 x 30mm (qty:10)	J 42385-514 M10 x 1.5 x 22mm (qty: 4)
Step Drill	J 42385-504	J 42385-511
Tap	J 42385-505	J 42385-512
Driver	J 42385-506	J 42385-513
Fixture	J 42385-301	J 42385-306
Bushing	J 42385-302	J 42385-307
Alignment Pin	J 42385-303	J 42385-308
Attachment Bolts	J 42385-503 (qty: 3)	J 42385-510
Loctite #277	J 42385-109	
Driver Oil	J 42385-110	

IMPORTANT

- Cutting fluid such as WD40® or GM P/N 1052864 is necessary for all drilling and tapping operations!
- A drill motor is recommended for all drilling and counterboring operations.
- Driver oil J 42385-110 must be used on the insert driver.
- After each cutting operation clean out chips using compressed air.
- Stop collars on step drills J 42385-504 and J 42385-511 are not adjustable! Do not adjust! Adjusting these collars will result in incorrect hole depths and possible engine damage!
- Do not allow metal chips or shavings to enter the engine assembly. Cover and clean components as necessary.

⚠ WARNING

Safety glasses must be worn at all times when using this kit.

INSTRUCTIONS

NOTE: Head bolt and main bolt repair operations are similiar, both may not be shown.

Step 1
Place largest hole in fixture plate -301 over the cylinder head bolt hole to be repaired.

-OR-

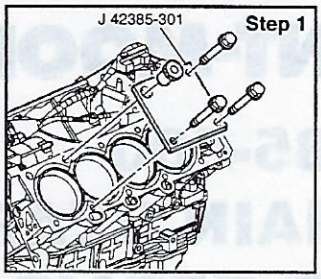
Step 2
Place the largest hole in fixture plate -306 over the main cap bolt hole to be repaired. **NOTE:** It may be necessary to rotate fixture plate upside down for certain holes.

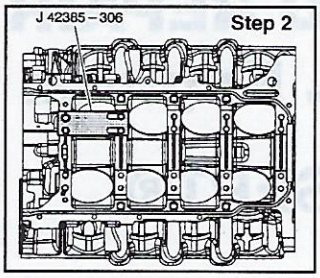
Step 3
Place bushing in fixture and alignment pin through the bushing and into the hole. Do not force the pin in place. Use appropriate attachment bolts to secure the fixture. Tighten to (15 Lb/Ft, 20 Nm Max.) Do not use an impact wrench!

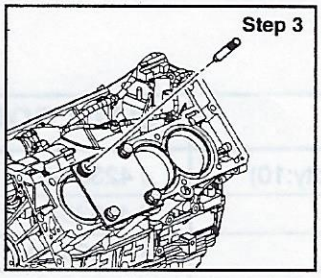
Step 4
Drill out damaged threads using step drill until stop collar contacts the bushing. This will require removing the drill and bushing several times to clear chips. **Note:** If bushing turns while drilling, remove drill and bushing and clean chips from each component.

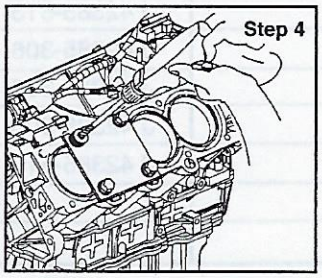
Step 5
Using the tap and tap handle, tap through the bushing until the appropriate groove on the tap aligns with the top of the bushing.

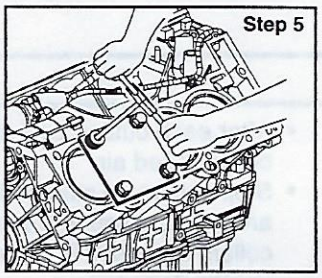
Step 6
Remove bushing and cylinder head fixture -301. Do not remove the main cap fixture -306 and bushing. Clean all chips from the hole using spray cleaner GM P/N 12346139 or P/N 12377981 and compressed air. The hole must be clean and dry prior to insert installation.

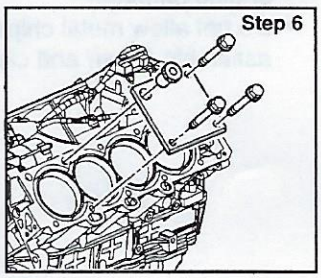












Step 7
Oil threads of the insert driver using J 42385-110. Do not use WD40®.

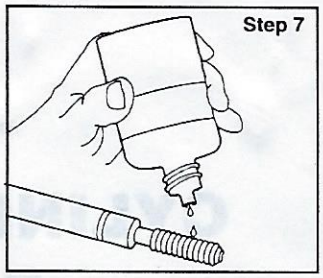
Step 8
Thread an insert onto the driver.

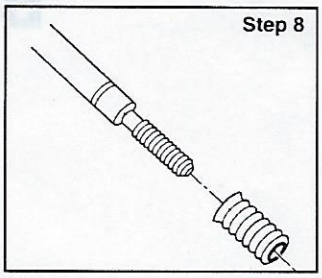
Step 9
Apply a small amount of Loctite® #277 to the bottom outside threads of the insert.

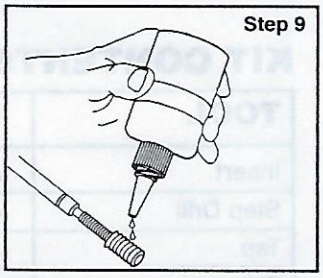
Step 10 (HEAD)
Install the head bolt thread insert into the prepared hole. Rotate the driver until the groove on the driver aligns with the top of the cylinder block. **NOTE:** On the shallower holes, align the groove on the driver closest to the threads with the cylinder block deck.

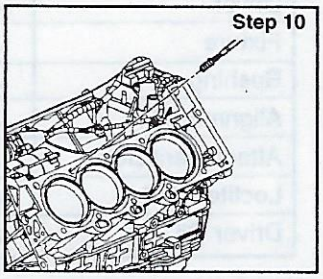
Step 11 (MAIN)
Install the main cap thread insert through the bushing and into the prepared hole. Rotate the driver until the groove on the driver (1) aligns with the top of the bushing.

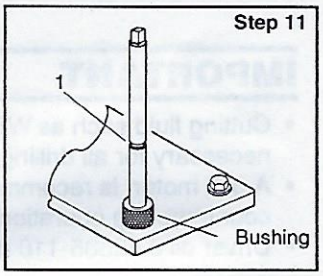
When the flange of the insert is seated, the driver will tighten up before screwing completely through the insert. This is normal since the bottom threads of the insert are being formed and mechanically locking the insert into the hole. Use a little more force and rotate the driver through the insert until the appropriate mark on the driver aligns with the cylinder head deck or bushing. See note below.











NOTE:		
To check for correct installation, measure deck surface to top of insert.	**MAIN** 5mm	**HEAD** 34mm