## **MERCEDES 722.6**

PART NUMBERS 68942-27K, F-68942-TL27

### 2-3 Overlap Valve Kit

#### 68942-27K



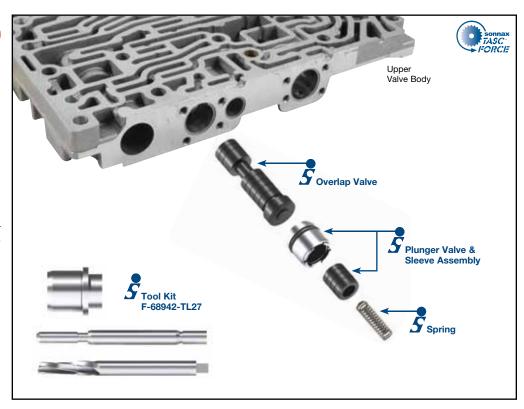
- Plunger Valve & Sleeve Assmbly
- Overlap Valve
- Spring
- O-Ring

#### F-68942-TL27

- Reamer
- Reamer Jig
- Guide Pin



**Note:** Sonnax "F-Tool" kits designed to service a specific bore required the VB-FIX, a self-aligning valve body reaming fixture. More information and instructions are available at www.sonnax.com.



#### 1. Disassemble valve.

Remove and discard the OEM overlap valve, plunger valve, plunger sleeve and spring.

#### 2. Prepare the bore.

- a. Clean the bore thoroughly in a solvent tank.
- b. Generously lubricate the bore and reamer with cutting fluid (i.e. Mobilmet S-122, Lubegard Bio-Tap, Tap Magic™, etc.). For best results, provide a continuous flow of water-soluble cutting fluid (i.e. Mobilment S-122) during the reaming process.
- c. The reamers should be turned using a low RPM, high-torque air drill regulated to a maximum of 200RPM.
- d. Examine the bore after cleaning for surface finish, debris and burrs. Flashing and burrs on the exit side of land and bores must be carefully removed. A small piece of Scotch-Brite™ material attached to a wire and powered with a drill motor is ideal for the task. Scotch-Brite™ is a very abrasive material and all residual must be cleaned to insure particles do not migrate or remain imbedded into the surface. Post cleaning involves several progressive steps with solvent on a lint-free rag.

#### **Cautions and Suggestions:**

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- Turning the reamer backward will dull it prematurely.
- Pushing on the reamer will result in poor surface finish and inadequate and sporadic material removal.
- Never use a crescent wrench, ratchet or pliers to turn the reamer.
- A dull reamer will cut a smaller hole. Reamers can be sharpened, but should only be done by a
  professional tool sharpener. Actual life of a Sonnax reamer before resharpening or replacing
  averages 50-70 bores.

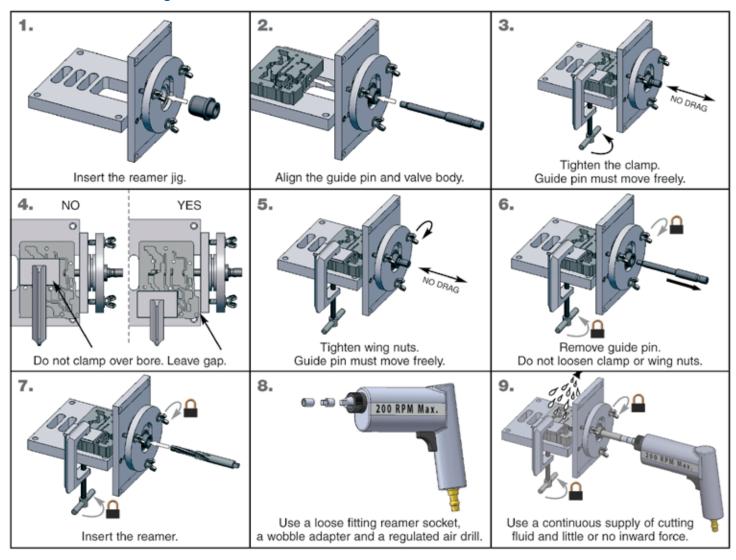


68942-27K Rev:- F-68942-TL27 Rev:-. 68942-27K-IN 08-11-10

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#### 3. Ream the bore using the Sonnax VB-FIX.



#### 4. Install and assemble part(s).

- a. Insert the oversized overlap valve into reamed and cleaned bore.
- b. Install the O-ring into the sleeve groove and roll on the bench to resize the O.D. Lubricate the O-ring and sleeve.
- c. Install the spring into the plunger valve pocket. Slide the plunger valve into the sleeve, with the spring facing the grooved end face.
- d. Slowly install the sleeve assembly into the valve body bore, taking care not to shear the O-ring. Ensure the end face grooves are outward.

#### 5. Perform final verification test.

A vacuum test at either port should hold 18" of vacuum or more.

