

Forward Engagement Valve Kit

56947J-56K

- Valve
- End Plug
- Spring



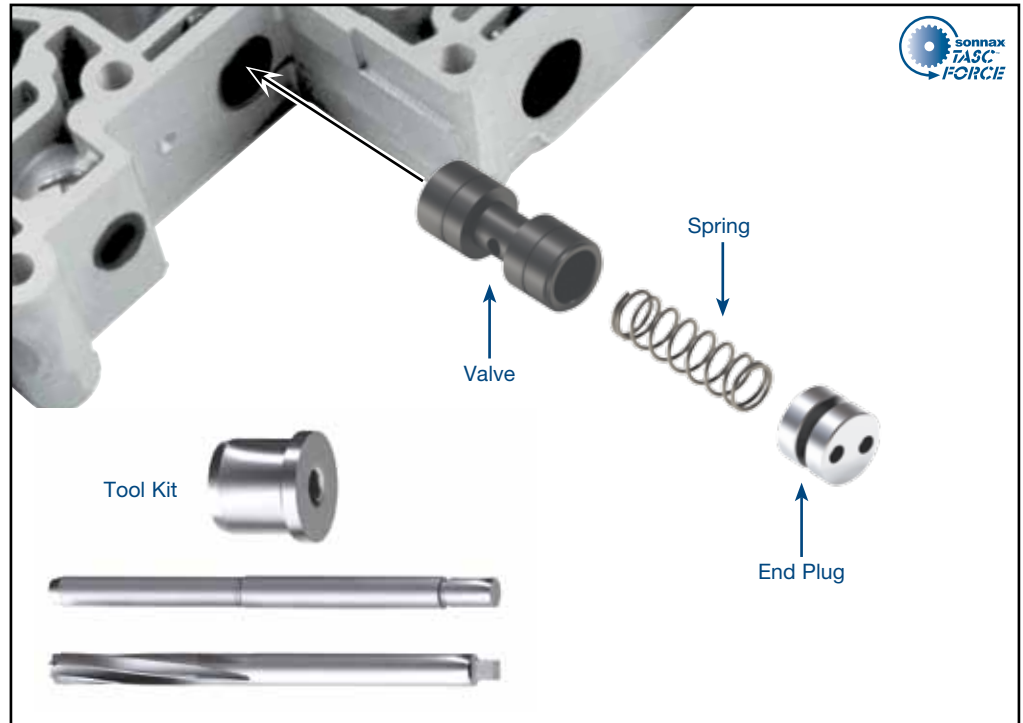
Tool Kit

F-27741-TL13

- Reamer
- Reamer Jig
- Guide Pin



NOTE: Sonnax “F-Tool” kits designed to service a specific bore require the VB-FIX, a self-aligning valve body reaming fixture. More information and instructions can be found online at www.sonnax.com.



1. Disassembly

- Remove and discard OE plug, valve and spring.
- Keep the OE retainer for reuse.

NOTES OR CAUTIONS:

Some pre-existing **F27741-RM13** reamers had a slightly longer than ideal guide nub at the tip. When fitting the replacement Sonnax valve (in **56947J-56K**), if a slight edge on the inboard port prevents the valve from stroking to the bottom, remove the bore edge with a Dremel® #194 high-speed cutter.

If flashing is visible at the exit edge, buff the bore with Scotch-Brite™.

Note: Clean the casting well after using abrasives.

2. Bore Preparation

- Clean the bore thoroughly in a solvent tank.
- 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. Mobilmet S-122) during the reaming process.
- The reamers should be turned using a low RPM, high-torque air drill regulated to a maximum of 200 RPM.

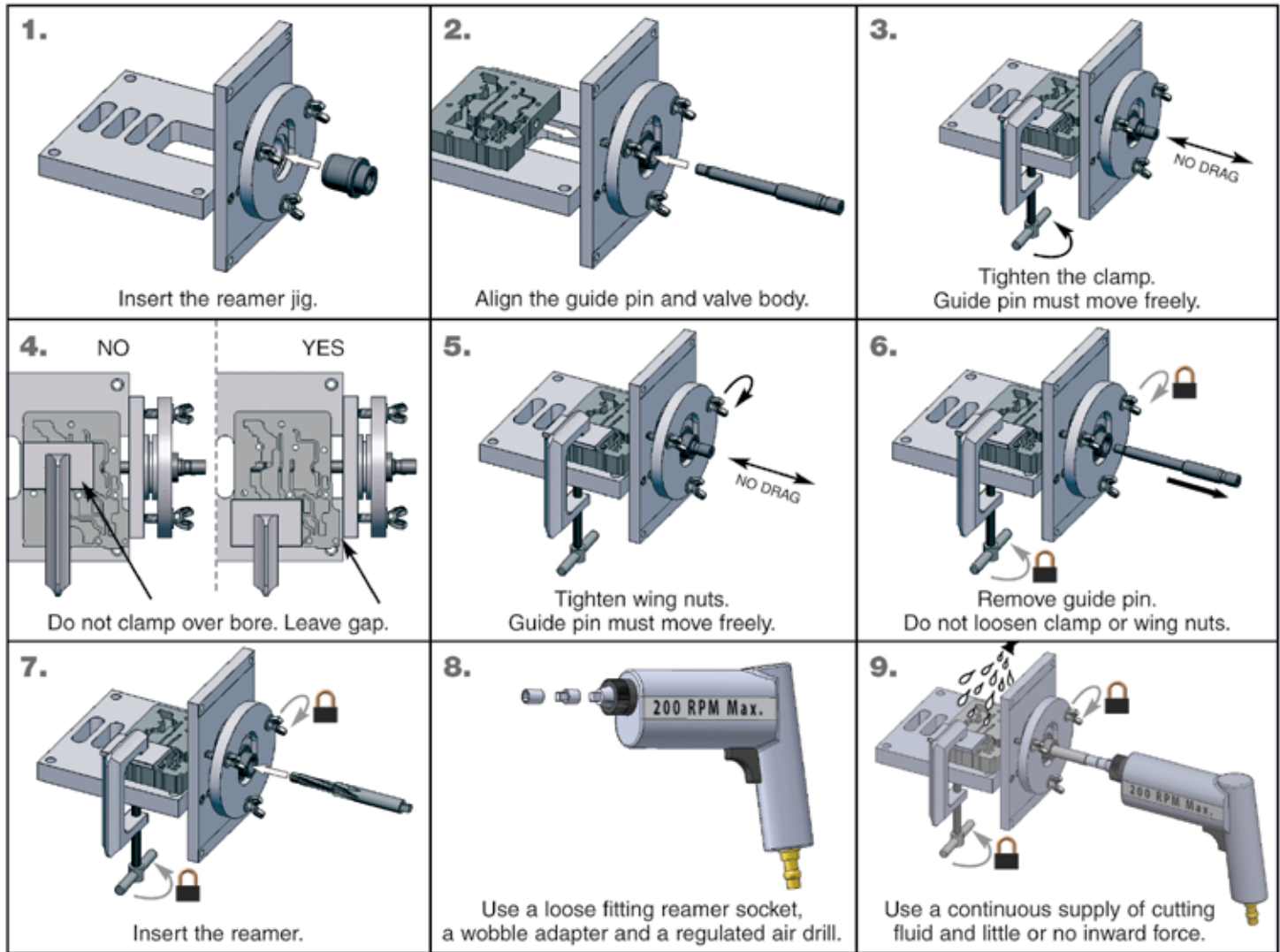
- Examine the bore after cleaning for surface finish, debris and burrs. Flashing and burrs on the exit side of land and in bores must be carefully removed. A small piece of Scotch-Brite™ material attached to a wire and powered with a drill motor is ideal for the task. Scotch-Brite™ is a very abrasive material and all residual debris must be cleaned to ensure 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:

- 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.

3. Bore Reaming

Use the associated "F-Tool" kit F-27741-TL13 and VB-FIX reaming fixture as illustrated below to ream the bore.



4. Installation & Assembly

- Place Sonnax spring into valve spring pocket and insert into bore spring end facing out.
- Install the Sonnax plug.
- Secure with OE retainer.

5. Final Testing

A vacuum test at port indicated.

