

## Reverse Engagement Valve Kit

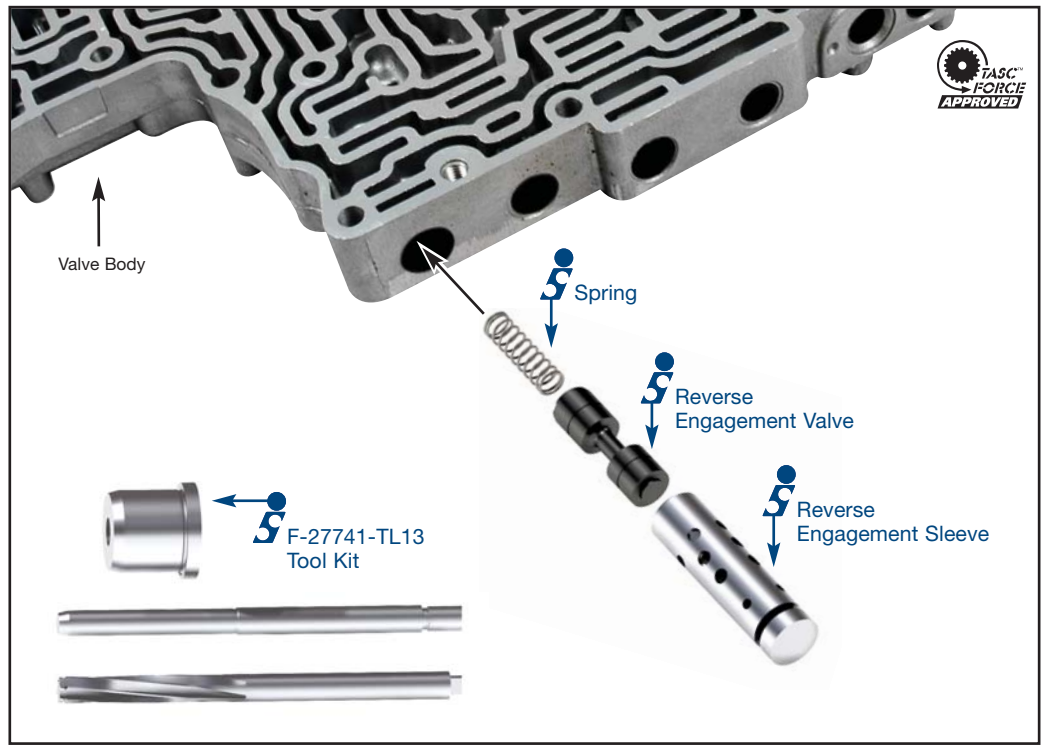
### 56947J-29K

1 Valve  
1 Sleeve  
1 Spring



### F-27741-TL13

1 Reamer  
1 Guide Pin  
1 Reamer Jig



### Disassembly Steps

1. Remove and discard OEM valve, spring and end plug.
2. Keep the OEM retaining clip for re-use.

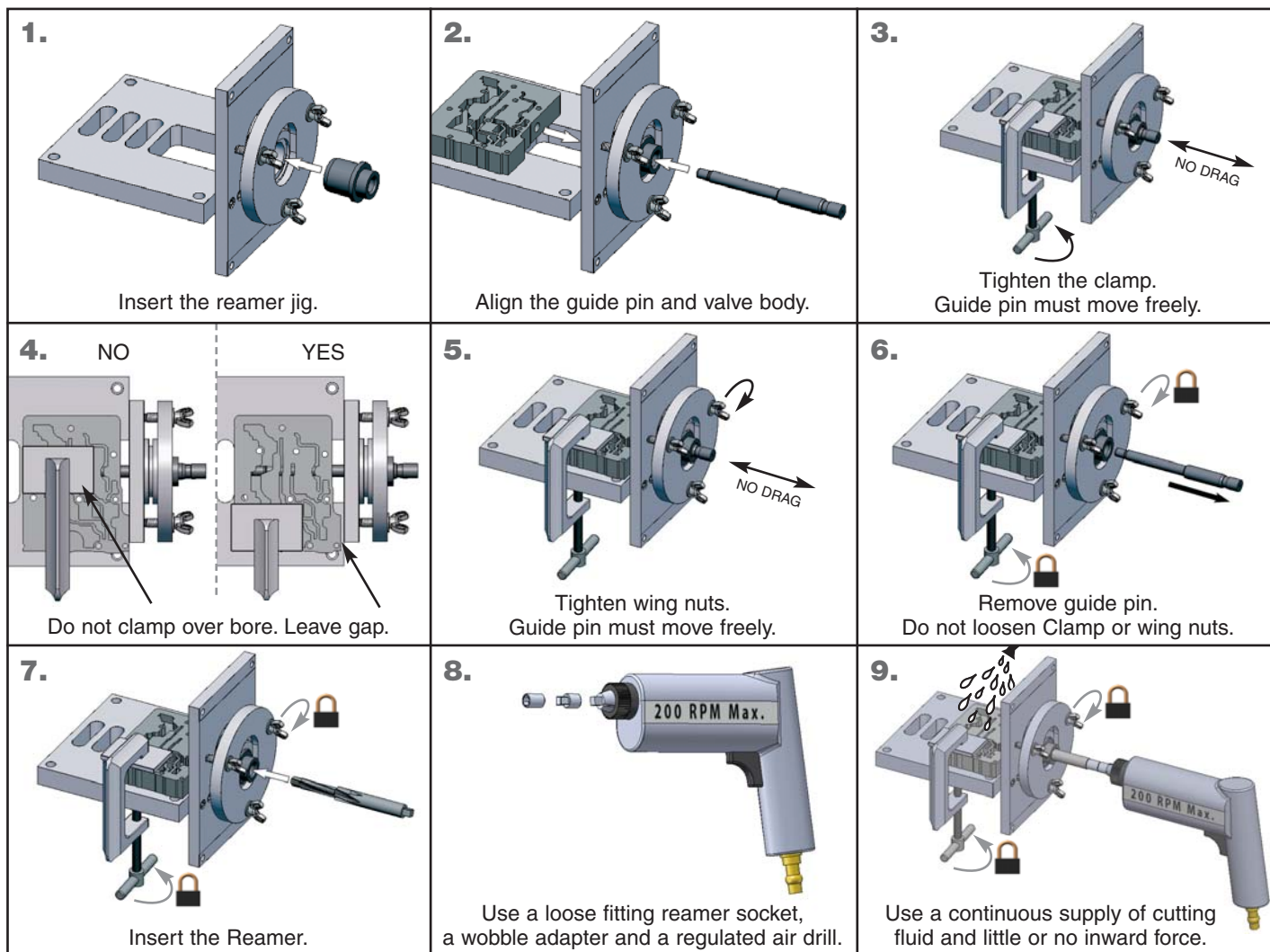
### Important Notes

1. Clean the bore thoroughly in a solvent tank.
2. 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.
3. The reamers should be turned using a low rpm, high torque air drill regulated to a maximum of 200 rpm.
4. Examine the bore after cleaning for surface finish, debris, and burrs. Flashing and burrs on the exit side of lands and bores must be carefully removed. A small piece of Scotchbrite™ material attached to a wire and powered with a drill motor is ideal for the task.

### Reaming Instructions

See next page

### Reaming Instructions



### Cautions and Suggestions

1. Turning the reamer backward will dull it prematurely.
2. Pushing on the reamer will result in poor surface finish and inadequate and sporadic material removal.
3. Never use a crescent wrench, ratchet or pliers to turn the reamer.
4. 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 reamer before resharpening or replacing averages 50-70 bores.

### Installation/Assembly Steps

1. Valve should be installed in the sleeve with the recessed spring pocket facing outward.
2. Place the replacement spring into the valve spring pocket.
3. Push valve/sleeve/spring assembly into the bore, spring end first, until OEM retaining clip can be re-installed into sleeve groove.

### Final Verification Steps

Wet Air Test at the VFS3/D321 feed port should have no leakage past the end-plug or past the valve spool and out the VFS3 Modulator port.

Vacuum testing at the VFS3/D321 feed port should reach minimum of 18" vacuum.

