

Pressure Regulator Valve Kit

36940-03K

- 1 Pressure Regulator Valve
- 1 Spring Sleeve/End Plug
- 1 Spring

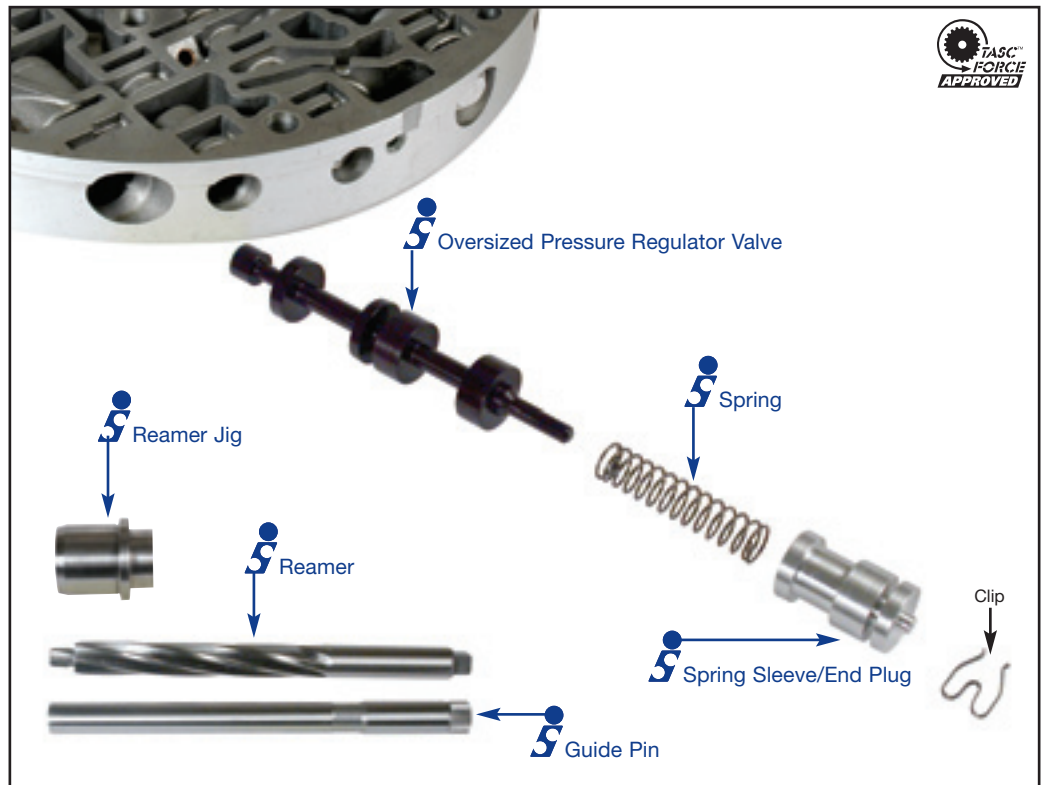


F-36940-TL3

- 2 Reamers
- 1 Reamer Jig
- 1 Guide Pin



Note: A specially designed oversized base plate **VB-06** must be mounted to the **VB-FIX** to accommodate the 5R110W pump body.



DISASSEMBLY

Discard all pressure regulator valve train components except for the spring sleeve retaining clip. The spring sleeve retaining clip will be reused.

VB-FIX Set-up

1. Remove the standard base plate from the **VB-FIX**.
2. Install the larger **VB-06** base plate to allow for the large pump configuration.

REAMING INSTRUCTIONS

Prep and Set-up

1. Remove all components from the bore.
2. Clean the bore thoroughly in a solvent tank.
3. To align the pressure regulator valve bore in the fixture, follow the **VB-FIX** instructions.
4. From tool kit **F-36940-TL3**, use jig **F-36940-RJ3** and guide pin **F-36940-GP3**, then ream with reamer **F-36940-RM3**.
5. Soak the bore and reamer with cutting fluid (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.
6. Gently insert the reamer through the jig and into the bore until the cutting tip contacts the first bore to be reamed.
7. Select the correct sized socket to fit the square shank of the reamer, and attach it to a wobble/swivel socket drive.

Reaming

Note: Once valve bore alignment has been established on the **VB-FIX**, do not disturb or loosen the pump body clamp or guide clamp fasteners in any way until the entire reaming process is complete. Be sure to use plenty of continuously supplied cutting fluid while reaming these bores.

1. The reamer should be turned either by hand using a speed handle or by a low rpm, high torque air drill regulated to a maximum of 200 rpm.
2. The reaming action should be clockwise in a smooth and continuous motion, at 60-200 rpm. The reamer should actually pull itself through the bore, so little or no forward force should be applied.
3. Continue reaming until the reamer stop is reached.

Finish and Clean-up

1. Using low air pressure, blow the chips free before removing the reamer.
2. To remove the reamer, turn clockwise while slowly pulling outward on the reamer.
3. Remove any remaining debris from the bore with low air pressure and clean in a solvent tank.
4. Examine the bore after cleaning for surface finish, debris, and burrs. Flashing and burrs on the exit side of casting bores can be carefully removed with a small piece of Scotchbrite™ on the end of a long wire.
5. Clean the reamer after each use and store in its protective tube.

Cautions and Suggestions

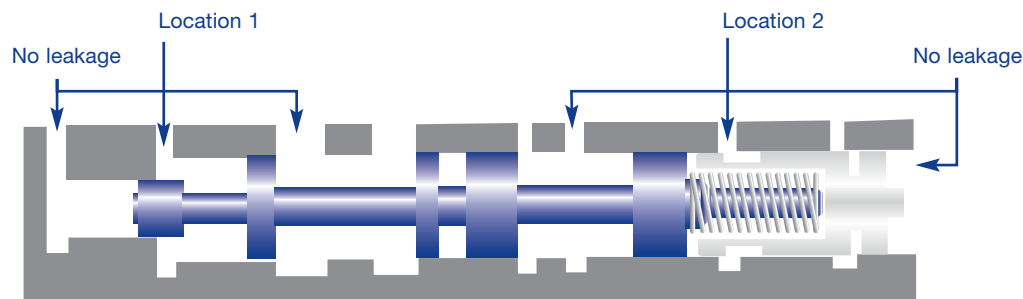
1. Turning the reamer backward will dull it prematurely.
2. Pushing on the reamer will result in poor surface finish and inadequate and sporadic material removal.
3. Never use a crescent wrench, ratchet or pliers to turn the reamer.
4. A dull reamer will cut a smaller hole. Reamers can be sharpened,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

INSTALLATION:

1. Insert the new pressure regulator valve into the reamed bore. Orient the valve as shown on page 1.
2. Insert the new spring into the bore over the valve stem.
3. Install the new spring sleeve/end plug.
4. Push the spring sleeve/end plug into the bore to compress the spring while installing the retaining clip.

VERIFICATION:

Perform a Wet Air Test or vacuum test of the balance end circuit and at the LPC/PCA solenoid circuit at the locations indicated. A vacuum test should reach at least 18" of vacuum. If performing a WAT, no leakage should occur at the neighboring ports.



For more information about valve body testing procedures, go to www.sonnax.com.