

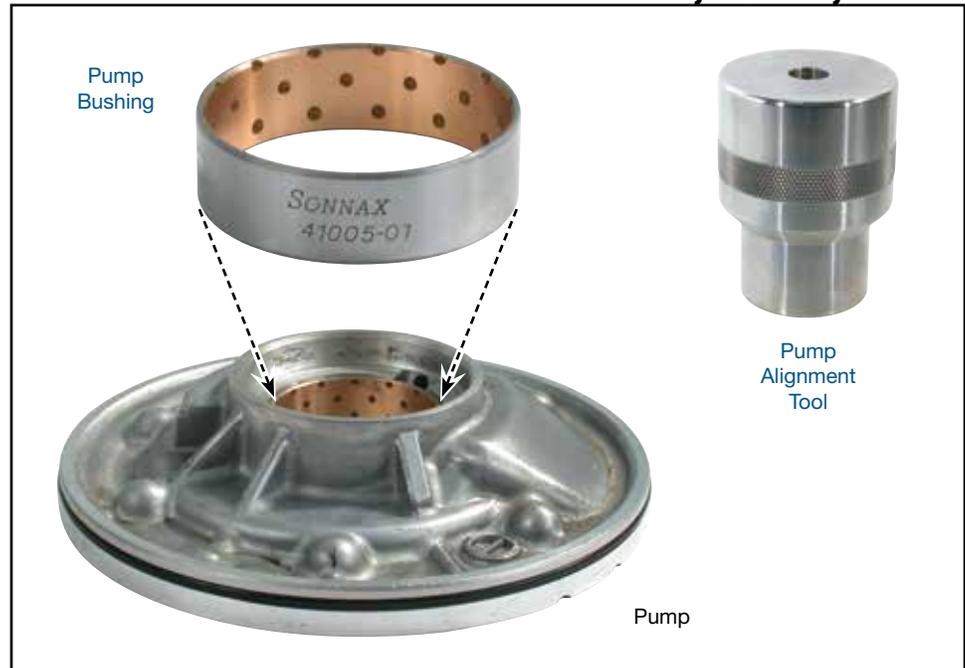
**Mitsubishi F4A41/42/51, F5A51,  
R4/V4A51, R5A51, V5A51**

**Pump Bushing**

**Part No.**  
**41005-01**

**Pump  
Alignment Tool**

**Part No.**  
**41005-TL**



**1. Disassembly**

- a. Disassemble pump and separate pump body from backing plate and pump gears.
- b. Remove OE pump bushing. Take care to avoid damaging bore during removal.

**2. Installation of Pump Bushing**

- a. Orient Sonnax pump bushing so the seam line lies about 90° rotation away from the two stake pockets on the inside of the pump body.
- b. Install Sonnax pump bushing using arbor press. The final position should be flush or just below flush. Ensure bushing is flush along entire perimeter (**Figure 1**).
- c. Stake bushing in place at the stake pockets.

**3. Instruction for Use of Pump Alignment Tool**

- a. Reassemble pump but do not tighten the torx fasteners completely.
- b. Lube 3/4" at the end of the smaller outside diameter of Sonnax pump alignment tool and the first 1/2" at the inner diameter of the pump stator support shaft with a light coat of ATF or TransJel (**Figures 2 & 3**).



### 3. Instruction for Use of Pump Alignment Tool (continued)

- c. Place Sonnax alignment tool over the stator support shaft. Using a twisting motion, carefully slide the smaller outside diameter of the tool through the new bushing. At the same time, the inner diameter of the stator support shaft must slip around the projecting cylinder on the inside of the alignment tool (**Figures 2 & 3**).



**NOTE:** Inserting the tool may be difficult as clearances are minimal. Remember to rotate tool during insertion through bushing.

- d. Pump is properly aligned when the pump body is seated flat against pump backing plate and the alignment tool is seated against the end of the stator support shaft (**Figures 2 & 3**).
- e. Tighten torx fasteners to specification. Front-wheel-drive F4A41/42/51 and F5A51: tighten to 80-85 in-lb. Rear-wheel-drive R4/V4A51, R5A51 and V5A51 tighten to 100-110 in-lb.
- f. Carefully remove Sonnax alignment tool from pump. Rotate tool to ease removal.

