5L40-E

PART NUMBERS 55211-01K, F-55211-TL

AFL Valve & Sleeve Kit

55211-01K

TOOL REQUIRED

1 Sleeve
1 Valve
1 Retaining Clip
1 Spring

F-55211-TL

VALVE BODY FIXTURE REQUIRED

1 Reamer Jig
1 Guide Pin
1 Roughing Reamer
1 Finish Reamer

Note: This tool kit is used for installing both **55211-01K** & **55211-11K**.

Also available

55211-04K

TOOL REQUIRED

TCC Regulator Valve and Sleeve Kit

F-55211-TL4

VALVE BODY FIXTURE REQUIRED

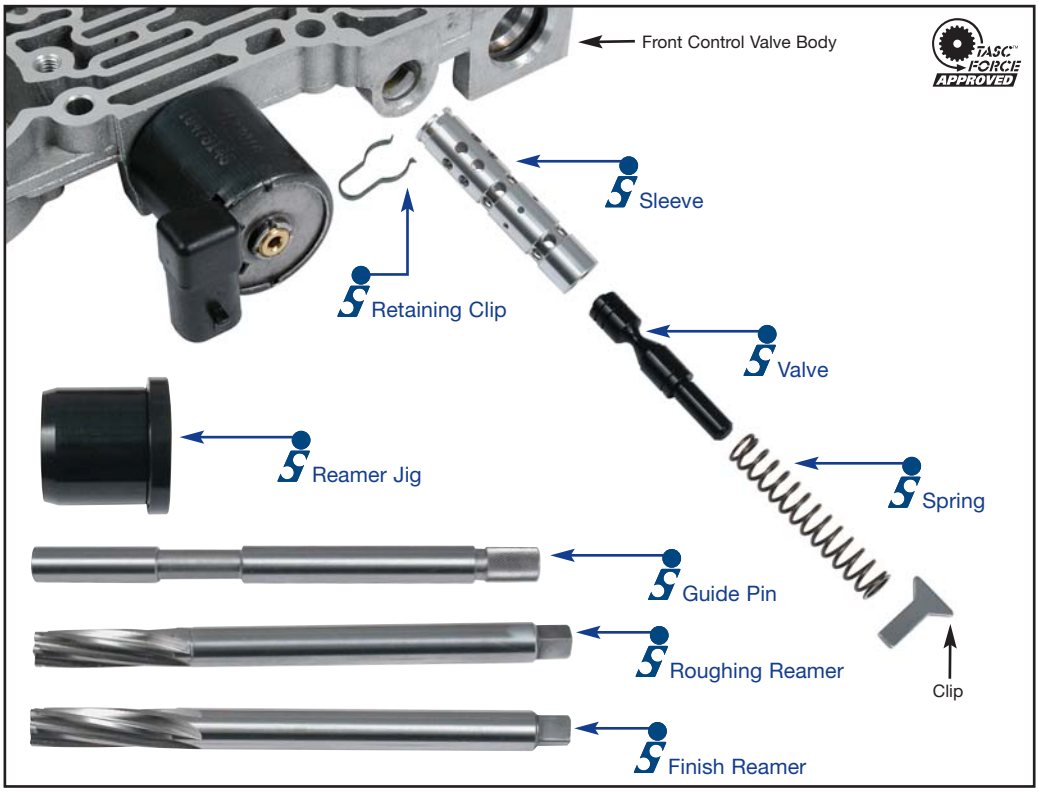
Tool Kit for 55211-04K

55211-11K

TOOL REQUIRED

Reverse Lockout Valve and Sleeve Kit

Note: Use tool kit above **F-55211-TL**.



Inspection

With the valve body still attached to the case, blow 30-60 psi of air pressure into the line pressure tap. No leakage should be visible near the AFL spring.

With the valve body removed, place a small amount of oil into the balance feed limit port, and follow with low air pressure. Leakage past the valve spool and out the line pressure port indicates wear.

You can also inspect by looking though the casting ports for visible bore wear or scoring between the feed limit and exhaust ports.

Disassembly

1. Remove and keep the OEM Y-shaped retaining clip.
2. Remove and discard the OEM valve and spring.

Reaming Instructions

Prep and Set-Up

1. Clean the bore thoroughly.
2. To align the AFL bore in the fixture, follow the **VB-FIX** instructions. From tool kit **F-55211-TL**, use jig **F-55211-RJ** and guide pin **F-55211-GP**, then ream with roughing reamer **F-55211-RM**, then finish reamer **F-55211-RM2**.

NOTE: Extra attention should be paid to alignment and securing the valve body to the fixture on this bore. A very smooth action to insert and remove the guide pin after final securing is a must to provide easy, on-center reaming of this bore.

3. 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.
4. Gently insert the reamer through the jig and into the bore until the cutting tip contacts the first bore to be reamed.
5. 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 a valve body alignment has been established on the **VB-FIX**, do not disturb or loosen the valve body setting or guide setting in any way until the reaming process is complete. Be sure to use plenty of continuously supplied cutting fluid while reaming these bores.

1. The reamer should be turned 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. The approximate reaming time is 5 minutes for each reamer.

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 & 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.

Installation

1. Ensure the valve/sleeve assembly is correctly oriented. The long valve stem should be on the opposite side as the end grooves in the sleeve.
2. Push the valve/sleeve assembly into the reamed bore, with the end grooves inboard and valve stem outboard.
3. Retain the sleeve with the enclosed retaining clip, in the sleeve groove exposed in the balance port.
4. Insert the enclosed spring into the bore, ensuring that it is seated over the valve stem.
5. Compress the spring and return the Y-shaped retainer to the outboard port.

NOTE: The sleeve is designed as a linear line-to-line fit in the bore to aid in proper retention. If the Y clip does not fit initially, carefully grind about .005” from the outboard face of the sleeve.