



# Technical Service Information

## AISIN TF80SC/A40-6

### TRANSMISSION FLUID DRAIN & FILL PROCEDURES

The Aisin TF80SC Six Speed Transmission found in Volvo and Saab automobiles is not equipped with a filler tube and fluid level indicator stick. This transmission uses an overflow tube located inside the transmission fluid pan with a level check plug in the center and a fill plug located on top of the transmission as shown in figure 1.

To begin the procedure:

- 1 - Transmission temperature should be below 120°F (50°C).
- 2 - Remove the lower engine cover to gain access to the drain and fill plugs, refer to figure 2.
- 3 - Using a 40 Torx® socket, remove the center level check plug, refer to figure 3.

**Caution: Some fluid will drain when the check plug is removed, exercise caution to avoid being scalded by hot transmission fluid.**

- 4 - Allow the fluid to stop draining as seen in figure 4.
- 5 - Remove the overflow tube using a 17mm Allen socket, refer to figure 5. Here again, exercise caution from hot fluid.
- 6 - Allow the rest of the fluid to drain as seen in figure 6.
- 7 - Replace the crush washer on the overflow tube and install it with the 17 mm Allen socket. Torque the overflow tube to 35 Nm (25 lb. ft.), refer to figure 7.
- 8 - Do not install the level check plug at this time.
- 9 - Remove the air snorkel and air filter assembly, refer to figure 8.
- 10 - Make certain the area around the fill plug is clear of debris. Remove the fill plug shown in figure 9 using a 55 Torx® socket.
- 11 - Using a clean funnel inserted into the fill hole, add two (2) Liters (2.11 Qts) of AW1 or an approved substitute transmission fluid, refer to figure 10.
- 12 - Temporarily replace the air filter assembly which contains the MAF Sensor so the engine will run.
- 13 - Start the engine and let it run while shifting through the gears. Add two (2) more Liters (2.11 Qts.) of AW1 or an approved substitute transmission fluid.
- 14 - Run the engine until the transmission is over 120°F (50°C) then let the engine idle in park.
- 15 - Check the overflow tube to see if fluid is coming out, if it is wait until it dribbles out and install the level check plug with a new o-ring seal. Torque the level check plug to 8 Nm (70 lb. in.).
- 16 - If no fluid is coming out of the overflow tube add small amounts of transmission fluid until it dribbles out, the transmission has the correct fluid level at this time.
- 17 - Install the lower engine cover.
- 18 - Install the fill plug with a new o-ring seal and torque to 8 Nm (70 lb. in.).
- 19 - Finish installing the air filter assembly.
- 20 - Road test the vehicle to ensure proper operation and return to shop for a leak check.

Note: If the transmission was overhauled and the converter replaced, the transmission fluid capacity is 7.0 Liters (7.4 Qts.).

## AISIN TF80SC TRANSMISSION FLUID DRAIN & FILL PROCEDURES

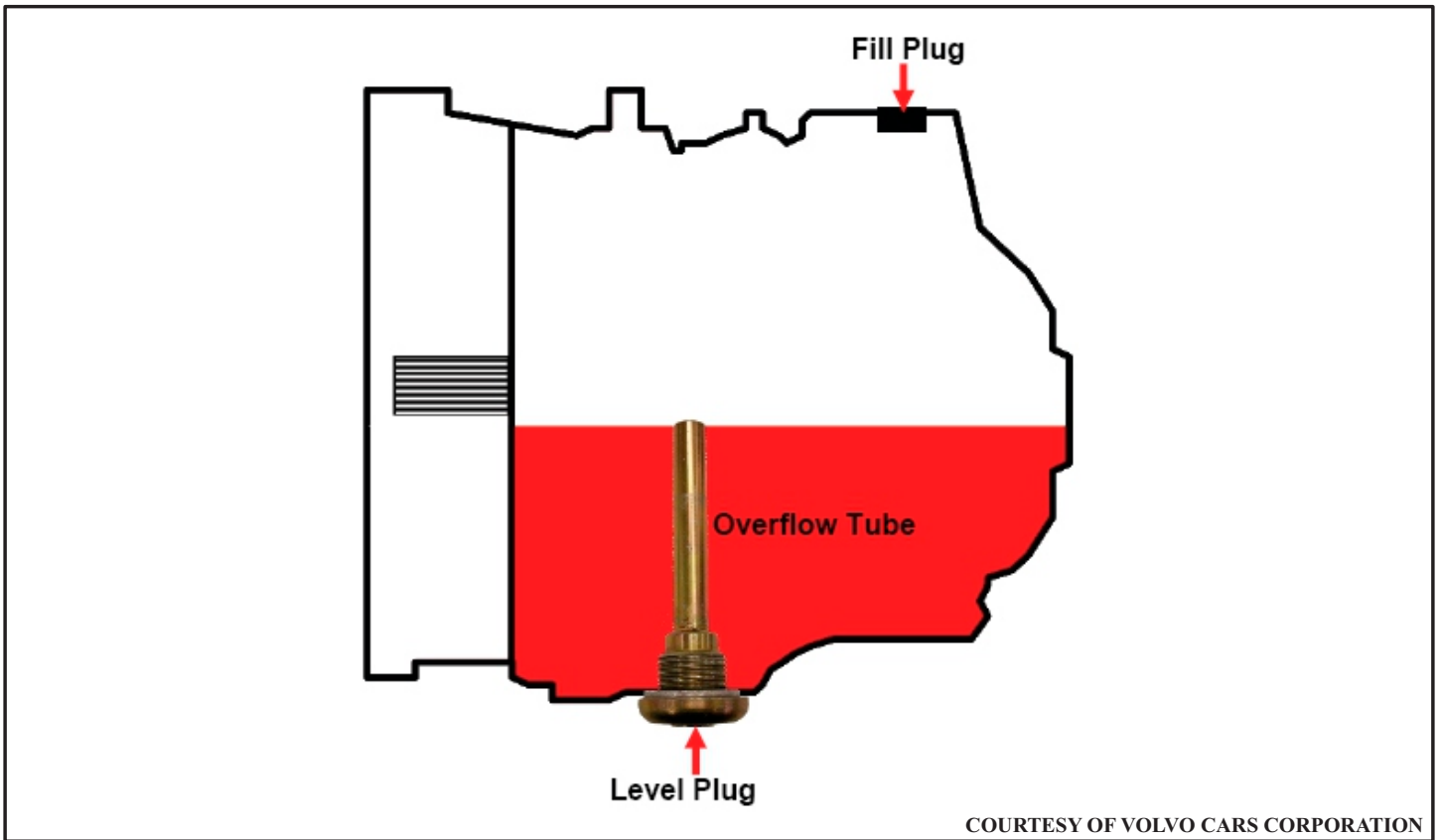


Figure 1

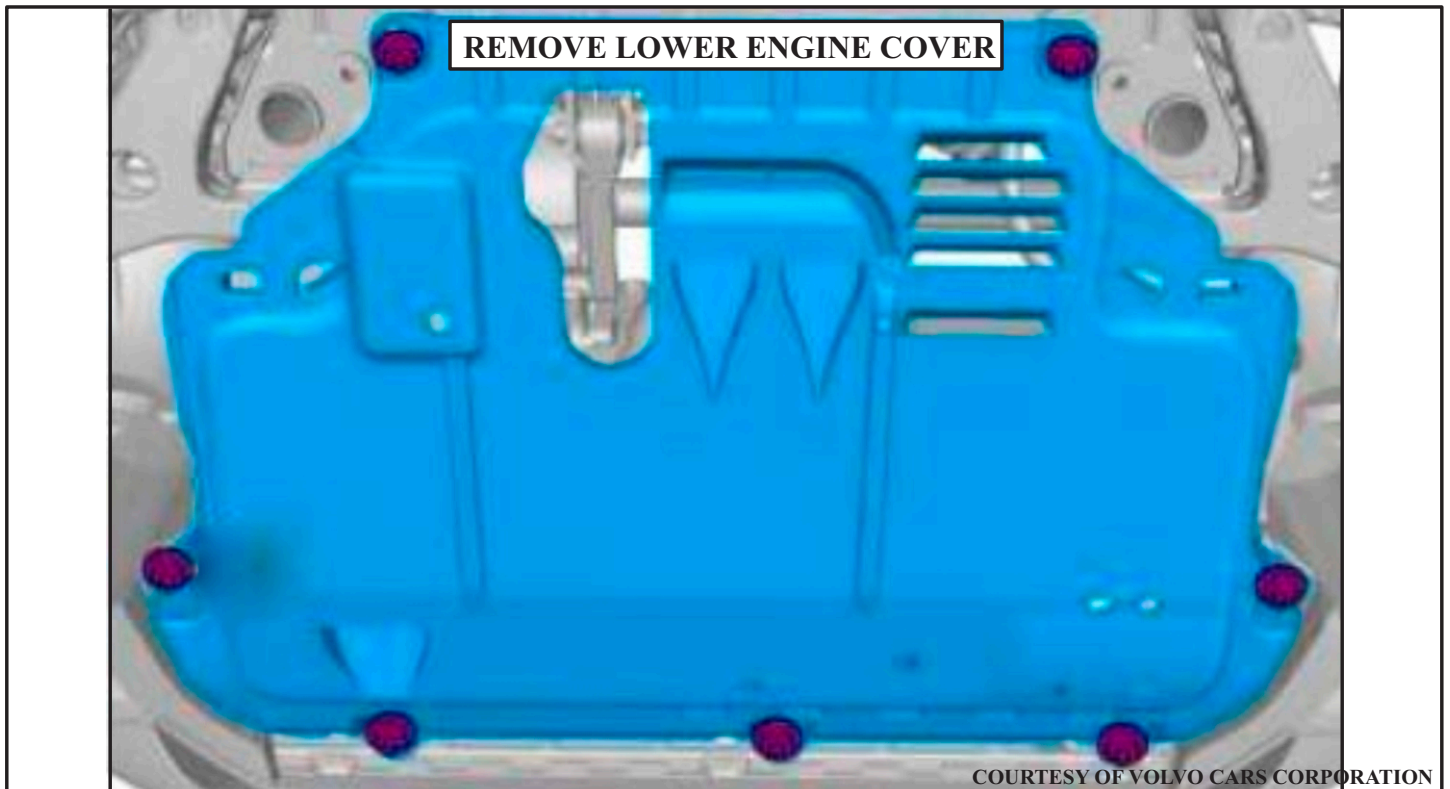


Figure 2

## AISIN TF80SC TRANSMISSION FLUID DRAIN & FILL PROCEDURES

REMOVE LEVEL CHECK PLUG WITH A 40 TORX® SOCKET

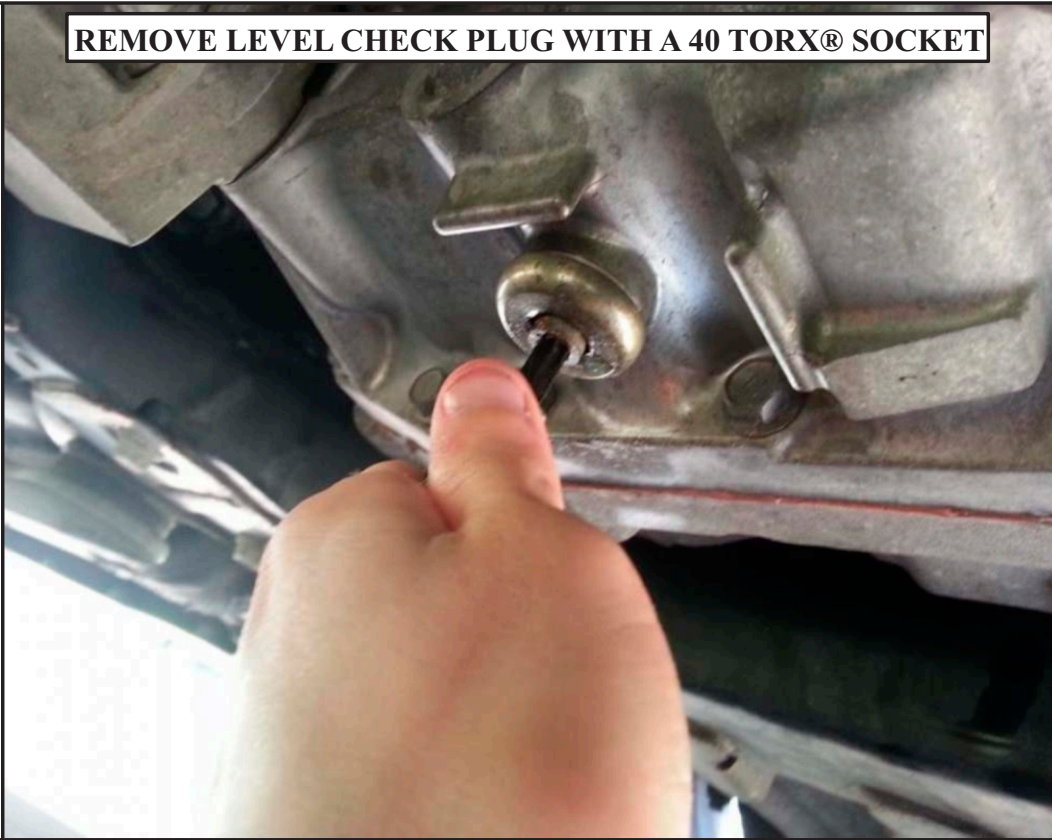


Figure 3

ALLOW FLUID TO DRAIN

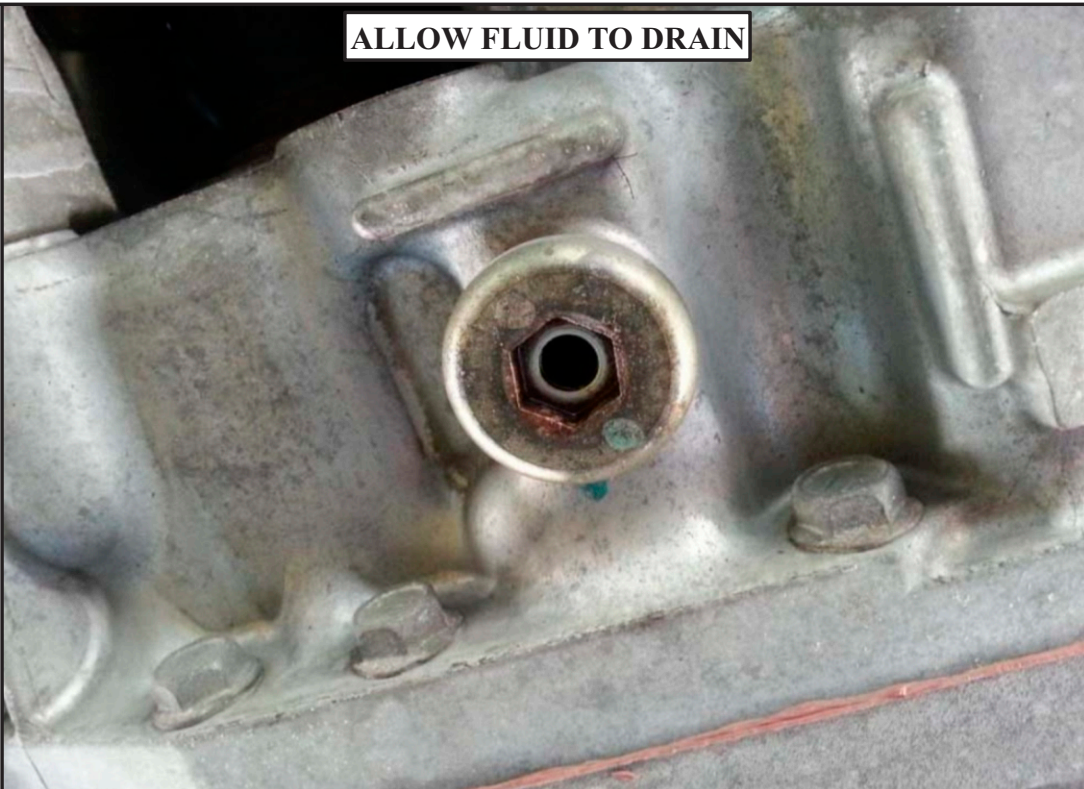


Figure 4



## AISIN TF80SC TRANSMISSION FLUID DRAIN & FILL PROCEDURES

**REMOVE OVERFLOW TUBE WITH A 17MM ALLEN SOCKET**



Figure 5

**ALLOW FLUID TO DRAIN**

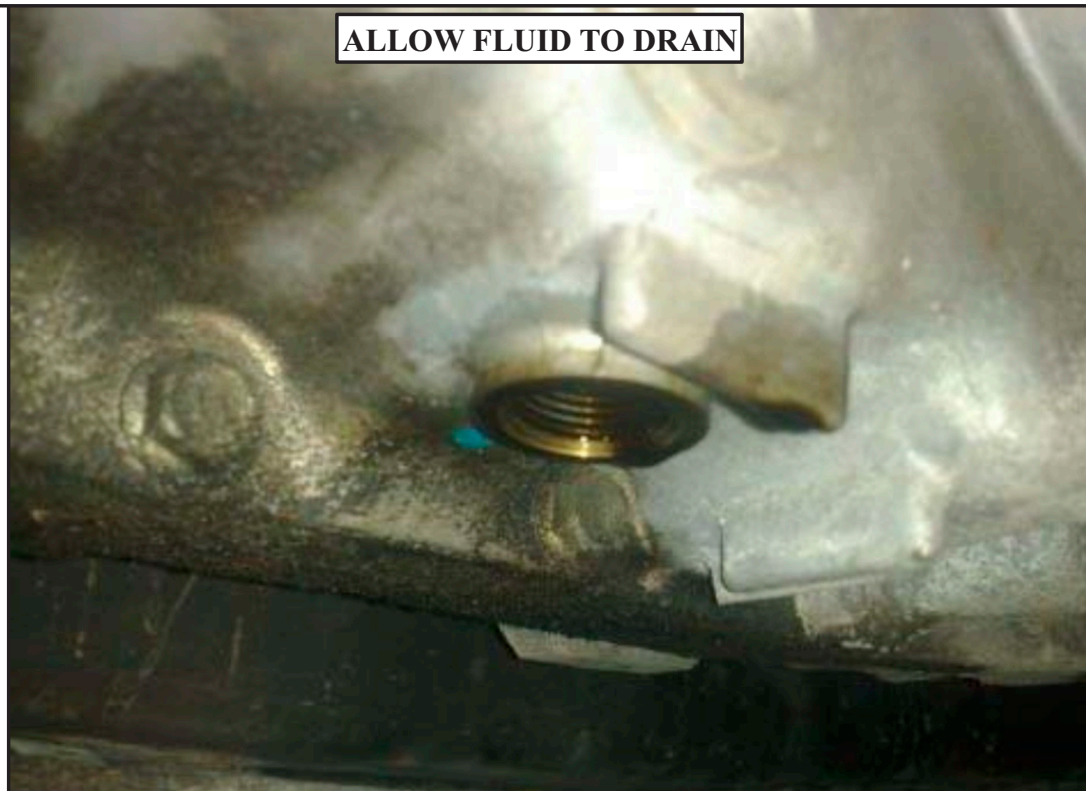


Figure 6

## AISIN TF80SC TRANSMISSION FLUID DRAIN & FILL PROCEDURES



Figure 7

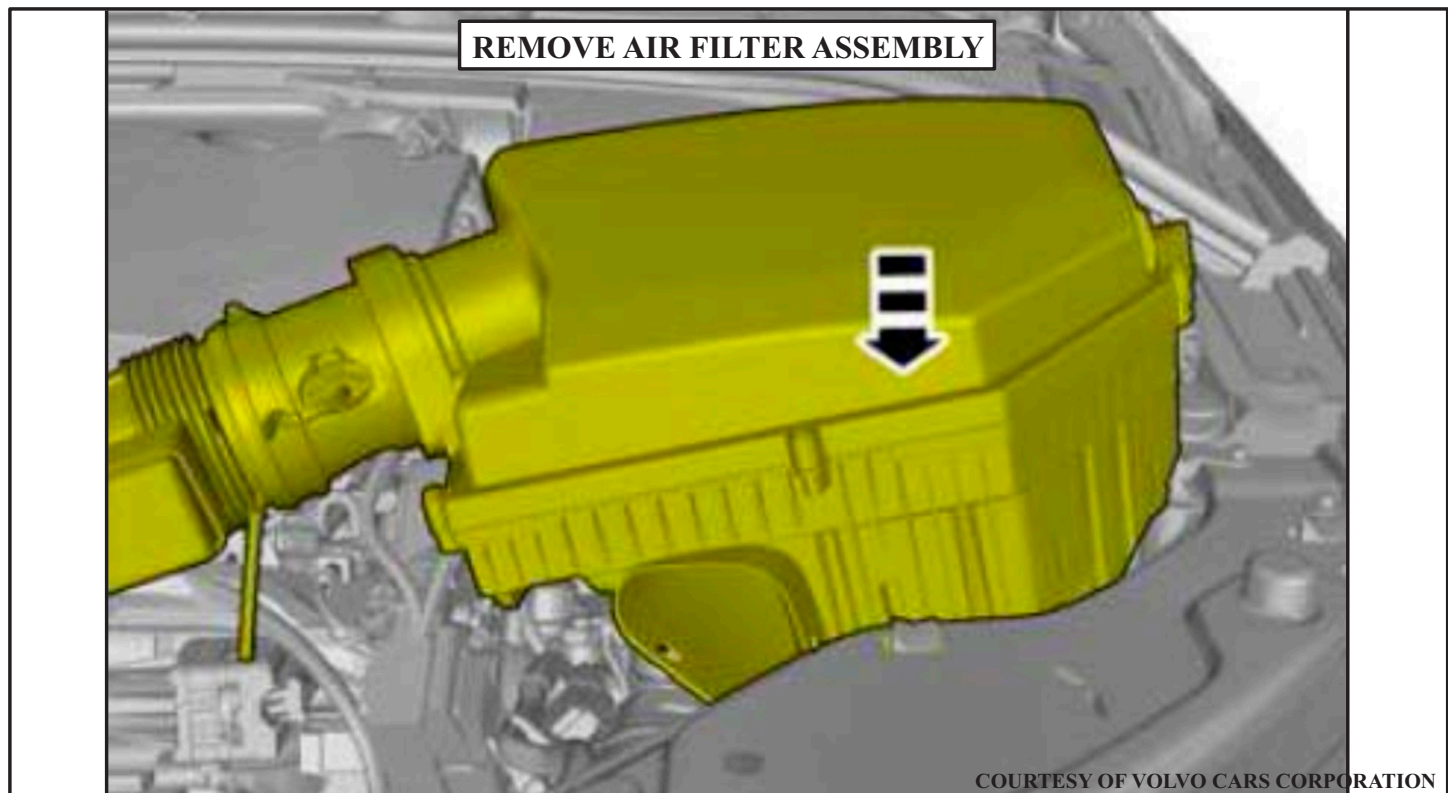


Figure 8



## AISIN TF80SC TRANSMISSION FLUID DRAIN & FILL PROCEDURES



Figure 9

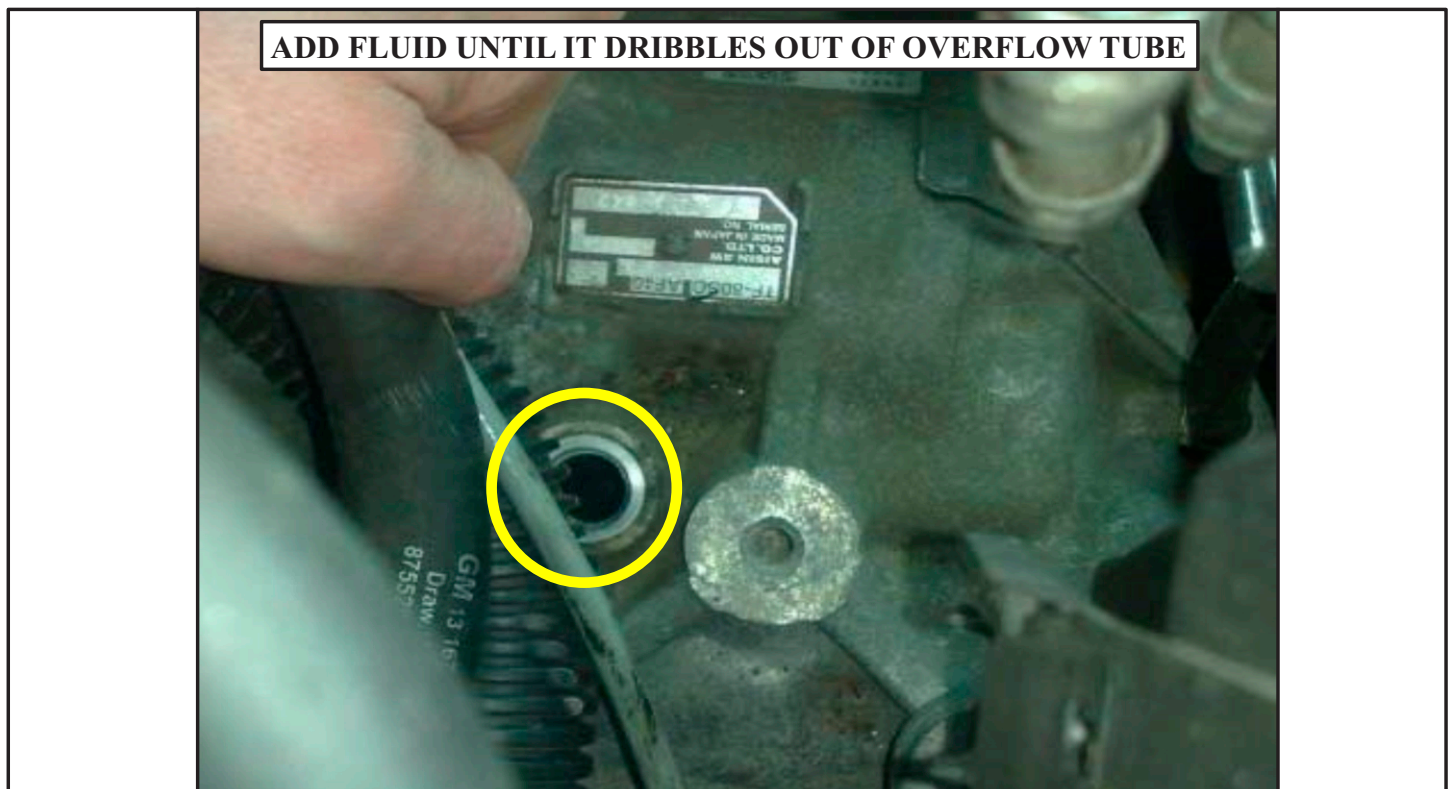


Figure 10