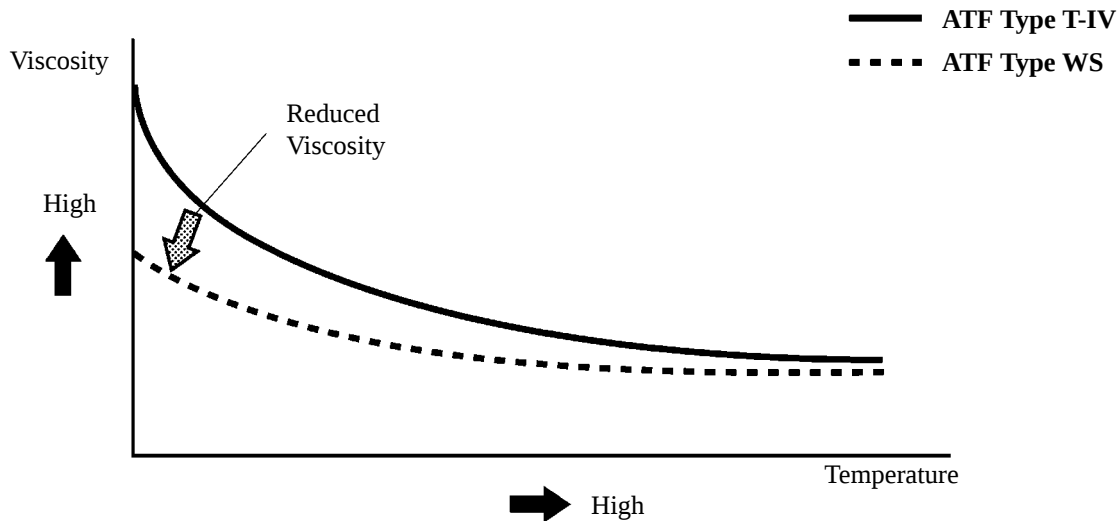


■ A750E (F) AUTOMATIC TRANSMISSION

1. ATF WS

- The T-IV type ATF (Automatic Transmission Fluid) of the A750E (F) automatic transmission on the '03 4Runner has been changed to the WS type on the '04 4Runner. The reduced viscosity in the practical operating temperature range enables the ATF WS to reduce drag loss and improve fuel economy.
- The ATF WS is not interchangeable with other types of ATF (ATF type T-IV, or D-II).



259LSK03

Service Tip

If a vehicle with a transmission filled with ATF WS is replenished with another type of ATF, the vehicle might not start off at extremely low temperatures. However, it will start off after it has been warmed up for a few minutes.

2. ATF Filling Procedures

- The ATF level gauge (dip-stick) has been discontinued, and the ATF inspection method and the oil level inspection method have been changed.
- This mechanism consists of a refill plug, overflow plug, ATF temperature sensor No.2, and A/T OIL TEMP temperature warning light.

Service Tip

ATF Filling procedures using SST (09843-18020):

When a large amount of ATF needs to be filled (i.e. after removal and installation of oil pan or torque converter), perform the procedure from step 1. When the small amount of ATF is required (i.e. removal and installation of the oil cooler tube, repair of oil leak), perform the procedure from step 7.

- 1) Raise the vehicle keeping it level.
- 2) Remove the refill plug and overflow plug.
- 3) Fill ATF from the refill plug until it overflows from the overflow plug.
- 4) Install the overflow plug.
- 5) Fill the specified amount of ATF determined by procedure and install the refill plug.

- Example

Procedure	Amount Liters (US qts, Imp.qts)
Removal and installation of an oil pan (including oil drainage)	1.7 (1.80, 1.50)
Removal and installation of a transmission valve body.	4.3 (4.54, 3.78)
Replacement of a torque converter	5.4 (5.70, 4.75)

- 6) Lower the vehicle down.
- 7) Use the SST (09843-18020) to short the terminals Tc and CG of the DLC3 connector:
- 8) Start the engine and allow it to idle.
 - A/C switch must be turned OFF.
- 9) Move the shift lever slowly through each of the positions from the P to the L position, and move it back to the P position.
- 10) Move the shift lever from the D position, and quickly move then back and forth between N and D (once per less than 1.5 seconds) for at least 6 seconds. This will activate the oil temperature detection mode.

Standard: The A/T OIL TEMP warning light remains illuminated for 2 seconds and it goes off.
- 11) Return the shift lever to the P position and disconnect the terminal Tc.
- 12) Idle the engine to raise the oil temperature.
- 13) Immediately after the ATF OIL TEMP warning light turns on, lift the vehicle up.
 - The A/T OIL TEMP warning light will indicate the ATF temperature according to the following table. (Insert table here)

ATF Temp.	Below proper ATF temperature	Proper ATF temperature	More than proper ATF temperature
A/T OIL TEMP Warning light	Turn OFF	Turn ON	Blinking

- 14) Remove the overflow plug and adjust oil quantity.
 - If the ATF overflows, go to step 17, and if the ATF does not overflow, go to step 15.
 - 15) Remove the refill plug.
 - 16) Fill ATF to the refill plug until it flows out from the overflow plug.
 - 17) When the ATF flow slows to a trickle, install the overflow plug.
 - 18) Install the refill plug (only if the refill plug has been removed).
 - 19) Lower the vehicle down.
 - 20) Turn the ignition switch OFF to stop the engine.
- For details about the ATF Filling procedures, see the 2004 4Runner Repair Manual (Pub. No. RM1059U)