

## **QUALITY ACTION**

### CAMPAIGN BULLETIN

### Automatic Transmission Dealer Inventory

Reference: PC563 Date: April 28, 2017

Attention: Dealer Principal, Sales, Service & Parts Managers

Affected Models/Years:	Affected Population:		SERVICE COMM Activation date:	
MY2017 Titan XD Gasoline – <b>2WD</b>	NA	430	April 28, 2017	NO

#### \*\*\*\*\*Dealer Announcement\*\*\*\*

Nissan is conducting a dealer inventory quality action to perform several inspections on **430** specific 2017 Titan XD Gasoline 2-wheel drive vehicles identified in Service Comm.

Dealer will perform the following:

- A/T Fluid Leak/Engine Oil Cooler Hose Inspection
- Power Steering Box Leak Inspection

Affected vehicles are **not** subject to stop sale and are either currently in dealer inventory or assigned and in transit to the dealer. Nissan requests dealers to complete this inspection prior to sale to help ensure customer satisfaction.

### \*\*\*\*\*What Dealers Should Do\*\*\*\*

- 1. Verify if vehicles currently in new dealer inventory are affected by this service action using Service Comm **I.D. PC563** 
  - New vehicles in dealer inventory can also be identified using DBS (Sales-> Vehicle Inventory, and filter by Open Campaign).
    - Refer to NPSB 15-460 for additional information
  - Please continue to check newly arriving inventory for campaign applicability.
- 2. Use the attached procedure to inspect the vehicle and, if necessary, repair.
- 3. The service department should submit the applicable warranty claim for the action(s) performed so it can be closed on Service Comm and release the vehicle.

### \*\*\*\*\* Dealer Responsibility \*\*\*\*\*

It is the dealer's responsibility to check Service Comm using the appropriate campaign I.D for the inspection status on each affected vehicle currently in new vehicle inventory. Nissan requests dealers to perform this repair on new vehicles in inventory prior to being retailed to help ensure customer satisfaction.

### **NISSAN NORTH AMERICA, INC.**

Aftersales DIVISION



# PC563 - TITAN XD (A61G, 2WD) MULTI-POINT INSPECTION

### **SERVICE PROCEDURE:**

### Inspection 1: A/T Fluid Leak Inspection

1. Verify the VIN of the affected Vehicle.

2. Raise the vehicle on a lift (Figure 1).

Note: 4WD shown, 2WD similar.

Figure 1

3. Locate the front under cover (Figure 2).

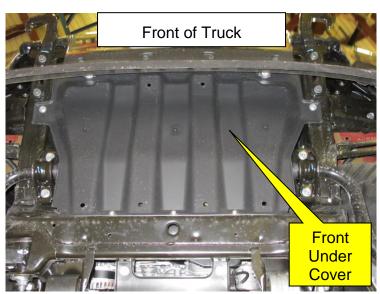


Figure 2

- 4. Remove the front under cover (Figure 3).
  - Remove the (7) front under cover bolts.

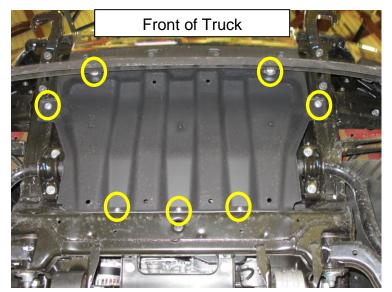


Figure 3

5. Locate the A/T fluid warmer and Engine Oil Cooler at the front of the oil pan (Figure 4, 5).

**Note:** 4WD shown, 2WD similar.

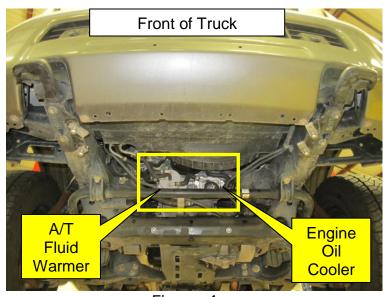


Figure 4

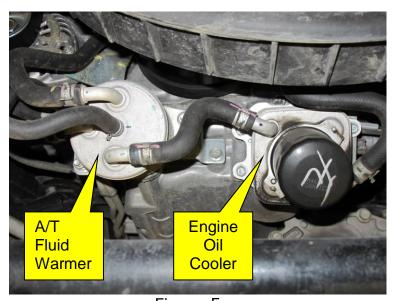


Figure 5

- 6. Inspect **four** A/T Warmer Hoses for proper configuration (Figure 6).
  - A. Straight tube hose placement: hose pushed all the way until flush with warmer housing.
  - B. Bent tube hose placement: hose pushed all the way to stop/lip or outward flare.
  - C. Clamp placement c; clamp located 5MM +or- 2MM (1/8<sup>th</sup> to 1/4 inch) from end of hose.

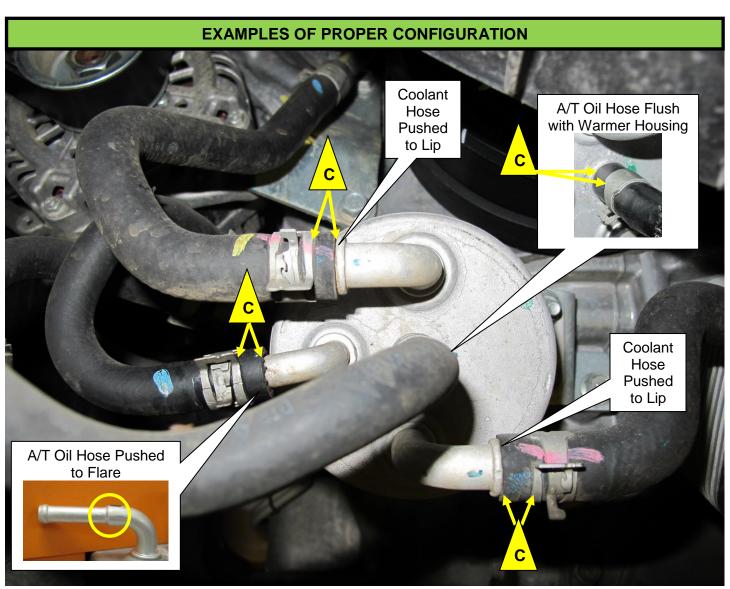
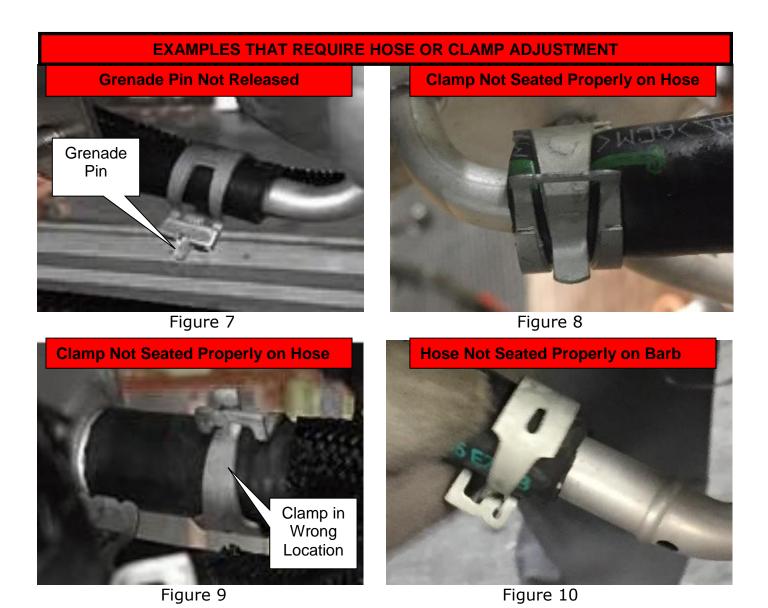


Figure 6

# 7. EXAMPLES OF A/T WARMER HOSE CONNECTIONS THAT REQUIRE ADJUSTMENT.

- Grenade pin not released/Clamp loose (Figure 7).
- Clamp not seated properly on hose (Too close to the end of the hose) (Figure 8).
- Clamp not seated properly on hose (Too close to barb lip) (Figure 9).
- Hose not seated properly on barb (Check hose insertion length) (Figure 10).



8. CORRECT ANY HOSES NOT PROPERLY INSTALLED, REFERENCE <u>STEP 6</u> (FIGURE 6).

- 9. Inspect **two** engine oil cooler hoses for proper configuration (Figure 11).
  - A. Bent tube hose placement: hose pushed to the lip on the oil cooler pipe.
  - B. Clamp placement Clamp located 7MM +or- 2MM or approximately (3/16 to 3/8 inch) from the end of the hose.

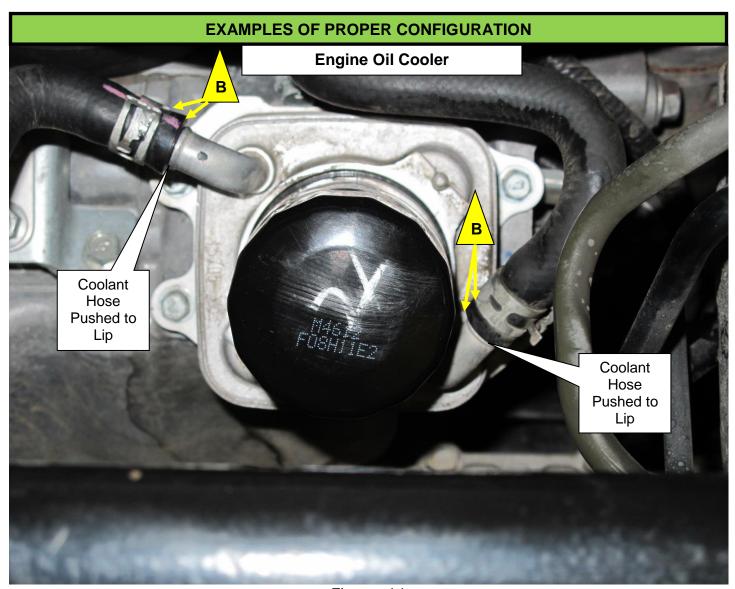
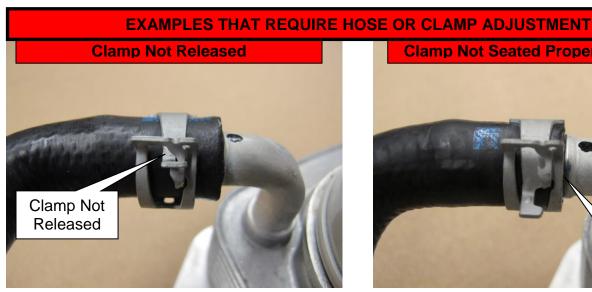


Figure 11

### 10. EXAMPLES OF ENGINE OIL COOLER HOSE CONNECTIONS THAT REQUIRE ADJUSTMENT.

- Clamp not released/Clamp loose (Figure 12).
- Clamp not seated properly on hose (Too close to the end of the hose) (Figure 13).
- Clamp not seated properly on hose (Too close to barb lip) (Figure 14).
- Hose not seated properly on barb (Check hose insertion length) (Figure 15).



**Clamp Not Seated Properly on Hose** Clamp in Wrong Location

Figure 12





Figure 14



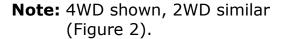
Figure 15

### 11. CORRECT ANY ENGINE OIL COOLER HOSES NOT PROPERLY INSTALLED, REFERENCE STEP 9 (FIGURE 11).

12. Once Inspection is complete and all hoses are properly installed, move to Inspection 2.

# Inspection 2: POWER STEERING BOX LEAK

1. Locate the power steering box connections for the Power Steering Hose Assembly (Pressure) and Power Steering Hose Assembly (Return). (Figure 1, 2, 3).



- Inspect for <u>LEAKS</u> between the Steering Gear Box and Power Steering Hose Assembly (Pressure) and Power Steering Hose Assembly (Return) connections. (Figure 3).
  - If <u>NO LEAK</u> found, inspection is complete, proceed to step 9 to install front under cover.
  - If **LEAK** found, proceed to step 3.

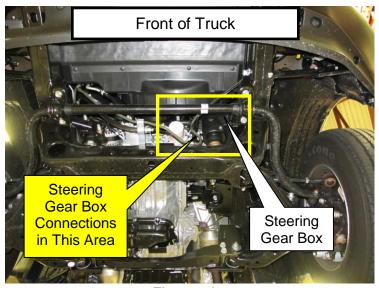


Figure 1

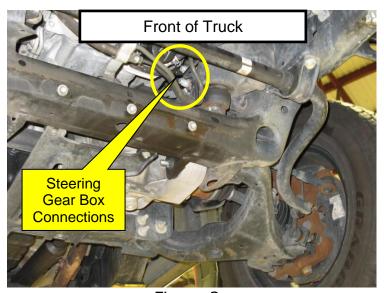


Figure 2

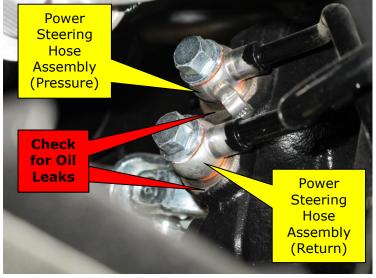


Figure 3

3. Remove the Power Steering Hose Assembly brackets and hose clamps to loosen lines.

 Remove the power steering hose clamp and the power steering pipe clamp bracket bolts from the front cross member (Figure 4).

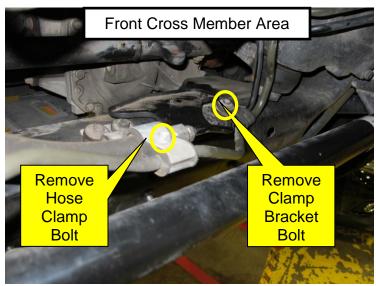


Figure 4

 Remove the two power steering pipe clamp bracket bolts from the driver's side front frame rail (Figure 5).

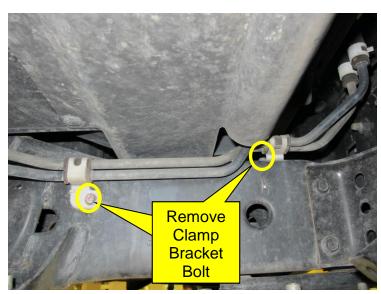


Figure 5

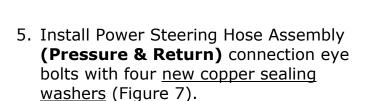
- Remove Power Steering Hose Assembly (Pressure & Return) eye bolts (Figure 6).
  - Remove old copper sealing washers and discard.
  - Inspect and clean any debris from copper sealing washer mating surfaces.

**Note:** Have drain pan available to collect spillage.

**Note:** When removing components such as tubes/lines, etc., cap or plug openings to prevent fluid from spilling.

**Caution:** Do not reuse drained power steering fluid.

**Caution:** Do not reuse copper sealing washers.



 Torque Power Steering Hose Assembly (Pressure/Return) connection eye bolts to:
 45N.m (33 ft-lb)

**Caution:** Do not reuse copper sealing washers.

- Reinstall power steering hose bracket bolts: Torque bolts to 9N.m (80 in-lb)
- 7. Proceed to step 8 for refilling and air bleeding the hydraulic system.

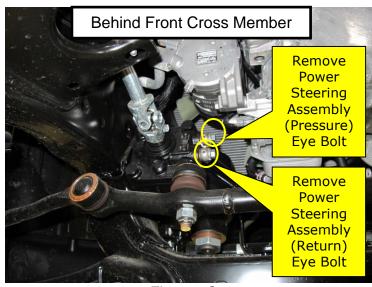


Figure 6

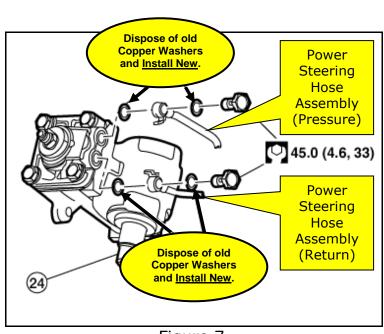


Figure 7

### 8. REFILLING AND AIR BLEEDING HYDRAULIC SYSTEM

**CAUTION:** Do not deviate from instructions or damage may occur.

**NOTE:** The following procedure will require an assistant for steps 10 through 13.

- **1.** Allow vehicle to cool to room temperature.
- 2. Verify that all power steering hydraulic connections are made and tightened to specifications.
- **3.** Turn front wheels fully left, lightly touching wheel stop.
- **4.** Fill power steering fluid reservoir to top just below neck and install the power steering fluid reservoir cap.
- **5.** Start the engine. After two seconds, stop the engine.

#### **CAUTION:**

- Do not crank and run engine for more than two seconds or new air may be drawn into the power steering system and pump damage may occur.
- Do not turn steering wheel at this time or new air may be drawn into the power steering system and pump damage may occur.
- **6.** Remove power steering fluid reservoir cap and fill power steering fluid reservoir to top just below neck. Reinstall power steering fluid reservoir cap.
- **7.** Repeat Steps 5 and 6 until power steering fluid level stabilizes at the top of reservoir just below the neck.

**NOTE:** Tank will need to be filled approximately 4 – 6 times. If power steering fluid is extremely foamy, allow vehicle to stand for a few minutes, then repeat Steps 4, 5 and 6.

- **8.** Remove power steering reservoir cap.
- **9.** Verify that power steering fluid has stabilized to top of reservoir just below neck. Add power steering fluid if necessary.

**NOTE:** Complete steps 10 through 13 without stopping between steps.

- **10.** Have an assistant start the engine. The power steering fluid reservoir level will immediately begin to drop.
- **11.** Quickly add power steering fluid to keep the fluid level at the COLD MAX line until the fluid level has stabilized.
- **12.** Keep engine running and have the assistant slowly (approximately 90° [1/4 turn] per second) turn the steering wheel completely from left to right, then back to the left, lightly contacting the steering stops at the end of each turn, while adding power steering fluid to keep fluid level at the COLD MAX line.
- **13.** Reinstall the power steering reservoir cap, then have assistant stop the engine.
- **14.** With the engine stopped, check the power steering reservoir fluid level.
- **15.** Remove power steering reservoir cap and add or remove fluid so that the level is at the COLD MAX line. Reinstall the power steering reservoir cap.
- **16.** Start the engine and moderately (approximately 180° [1/2 turn] per second) turn the steering wheel from left to right, then back to the left, lightly contacting the steering stops at the end of each turn. Stop the engine.
- 17. With the engine stopped, check the power steering reservoir fluid level.
- **18.** Remove power steering reservoir cap and add or remove fluid so that the level is at the COLD MAX line. Reinstall the power steering reservoir cap.
- **19.** Repeat steps 16, 17 and 18 until the power steering reservoir fluid level has stabilized to the COLD MAX line and no air bubbles or foam exist in the fluid.

**NOTE:** If power steering fluid is extremely foamy, allow vehicle to stand for a few minutes, then repeat Steps 9 through 19 until air bubbles or cloudiness do not exist.

- 20. Adjust final fluid level to COLD MAX line at a fluid temperature of 0° 30°C (32° 86°F).
- **21.** Reinstall the power steering reservoir cap.
- **22.** Inspect for power steering fluid leaks.

- 9. Install front under cover.
  - Install the (7) front under cover bolts: torque to 13.5N.m (10 ft-lb)
- 10. Submit a warranty claim using the claims information for the Inspection/Repairs completed.
- 11. Release the vehicle, inspection complete.

### **Inspection 1: A/T Fluid Leak Inspection**

PARTS INFORMATION: (NOT REQUIRED)

### **Inspection 2: Power Steering Box Leak**

### **PARTS INFORMATION:**

Description	Quantity	Part #
Washer-Lock	4	49726-50W00
Genuine NISSAN PSF or Equivalent	2 Max	999MP-AG000P

### **CLAIMS INFORMATION**

Submit claim using the following claims coding:

Work Order Line Type: "CM" Campaign

Campaign: PC563

Claim Type: CM		М					
PNC:		63					
Symptom:	ZZ						
Diagnosis:	99						
Description:	Op Codes	Flat Rate Time	Parts Required on claim	Expense Code Required			
MULTI-POINT INSPECTION							
Multi-Point Inspection: (ALL) 1. A/T Fluid Leak Inspection (Includes Hose & Clamp Adjustment) 2. Power Steering Box Leak	PC5630	0.5 Hr	No	No			
INSPECTION 2 - Repair							
Inspect Automatic Transmission Fluid Leak & Power Steering Box Leak. Replace 4 Copper Washers: Power Steering Hose Assembly Pressure & Return Connections	PC5631	1.5 Hr	Yes	No			