QUALITY ACTION

CAMPAIGN BULLETIN

Automatic Transmission Dealer Inventory

Reference: PC565
Date: April 28, 2017

Attention: Dealer Principal, Sales, Service & Parts Managers

Affected Models/Years:	Affected Population:	Dealer Inventory:	SERVICE COMM Activation date:	Stop Sale In Effect
MY2017 Titan XD Diesel – **2WD**	NA	**974**	April 28, 2017	**NO**

*******Dealer Announcement*******

Nissan is conducting a dealer inventory quality action to perform several inspections on **974** specific 2017 Titan XD Diesel 2-wheel drive vehicles identified in Service Comm.

Dealer will perform the following:

- A/T Fluid Cooler Leak Inspection
- Rear Prop Shaft Bolt Torque Inspection
- Power Steering Pump and Bracket Torque 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. PC565**
   - **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

PC565 – TITAN XD (A61D, 2WD)
MULTI-POINT INSPECTION

SERVICE PROCEDURE:

Inspection 1: A/T Fluid Leak Inspection

1. Verify the VIN of the affected Vehicle.

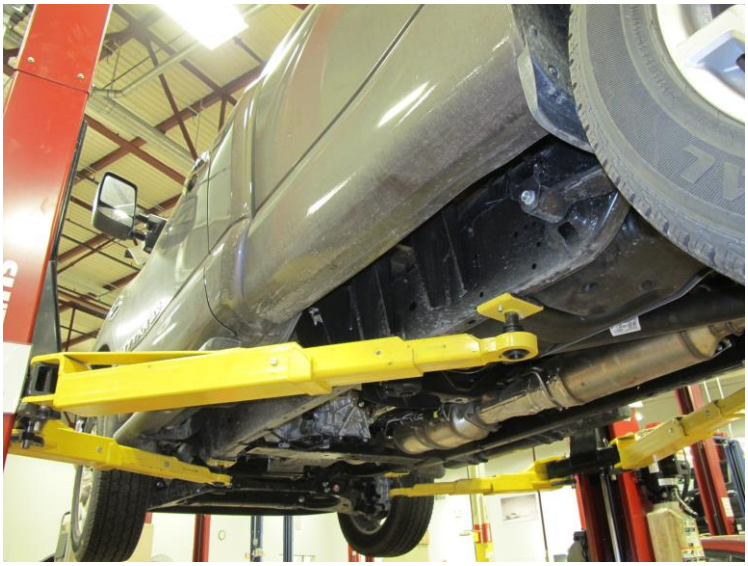

Figure 1

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

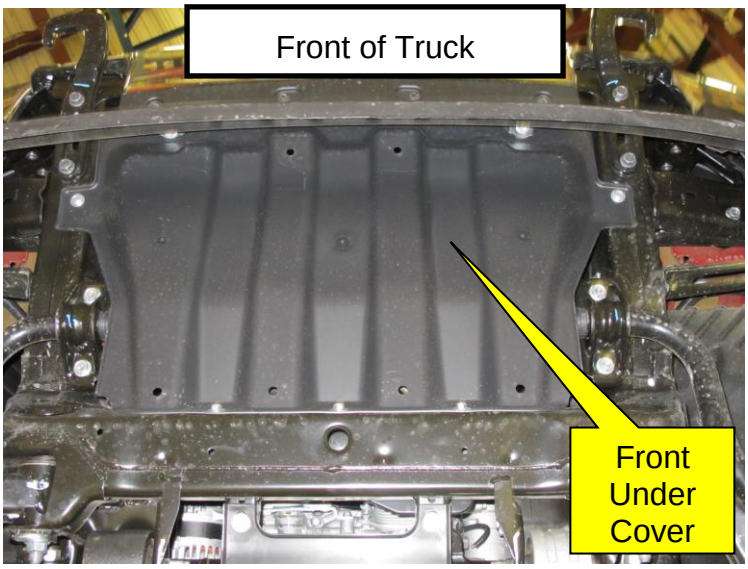

Figure 2

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

4. Remove the front under cover.

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

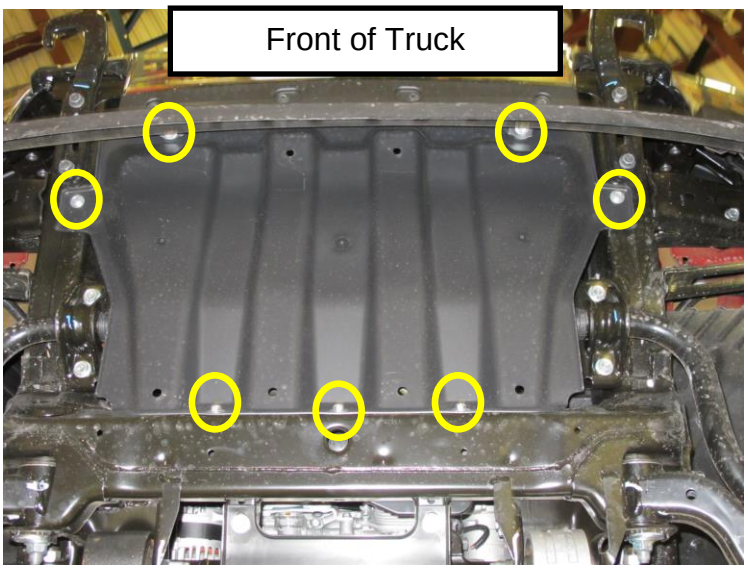

Figure 3

5. Locate the A/T fluid cooler hose "A" and "B" connections at the front passenger side of the truck (Figure 4).

   Note: 4WD shown 2WD similar.

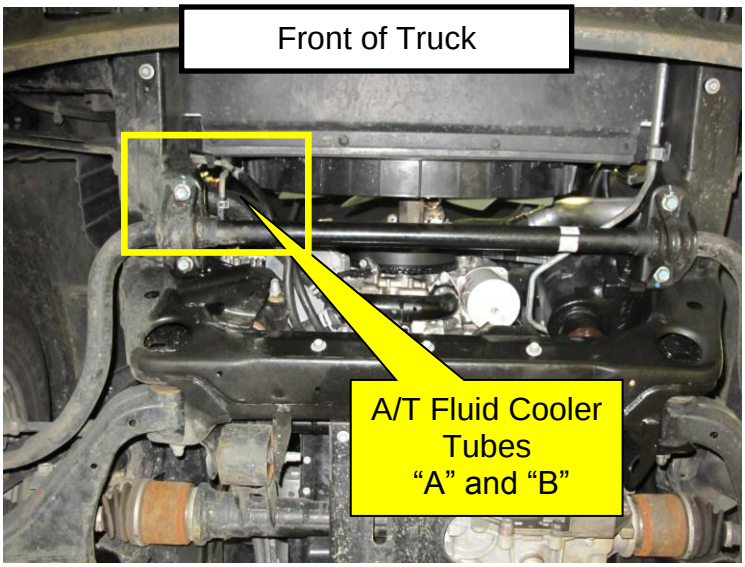

Figure 4

6. Inspect A/T Fluid Cooler Hose "A" and "B" connections for proper configuration (Figure 5).

   A. A/T Fluid Cooler hose placement: Hose pushed all the way to flare.

   B. Clamp placement B; clamp located 5MM to 9MM or approximately (3/16 to 3/8 inch) from end of hose.

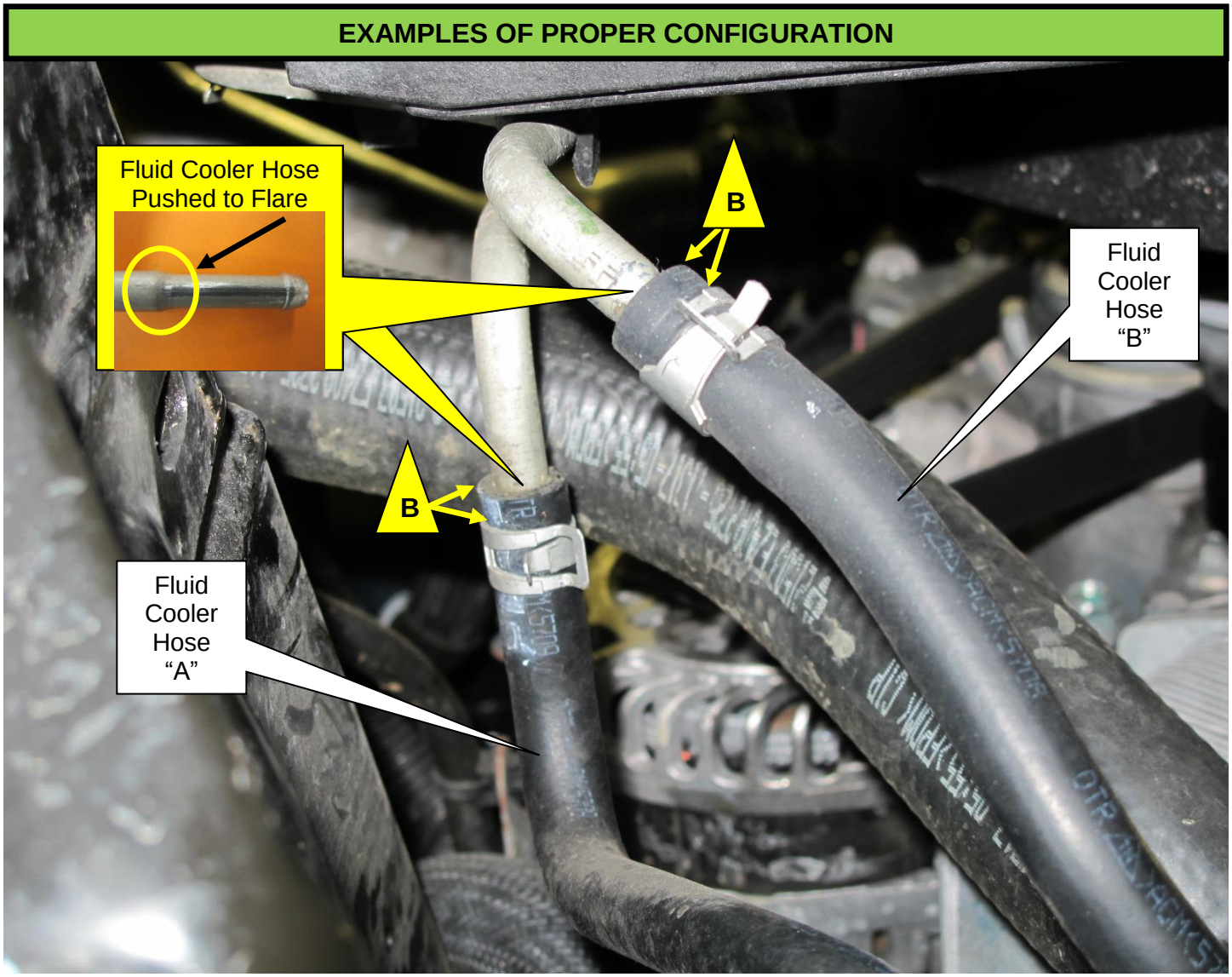

Figure 5

7. EXAMPLES OF A/T FLUID COOLER HOSE "A" AND "B" HOSE CONNECTIONS THAT REQUIRE ADJUSTMENT.

- Grenade pin not released (Figure 6).
- Clamp not seated properly on hose (Too close to the end of the hose) (Figure 7).
- Clamp not seated properly on hose (Too close to barb lip) (Figure 8).
- Hose placement not correct (Check hose insertion length) (Figure 9).

EXAMPLES THAT REQUIRE HOSE OR CLAMP ADJUSTMENT

Grenade Pin Not Released

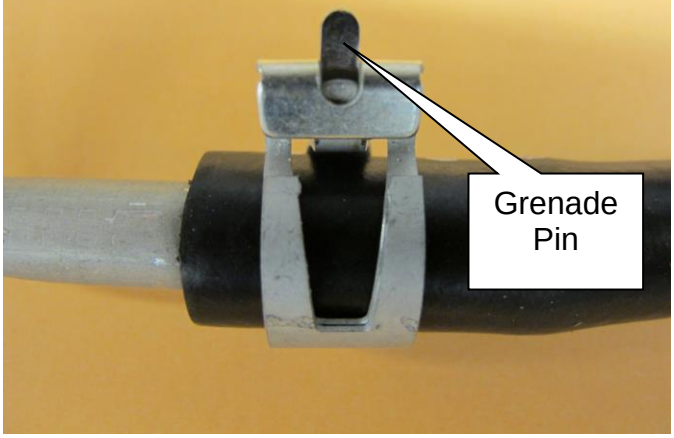

Figure 6

Clamp Not Seated Properly on Hose

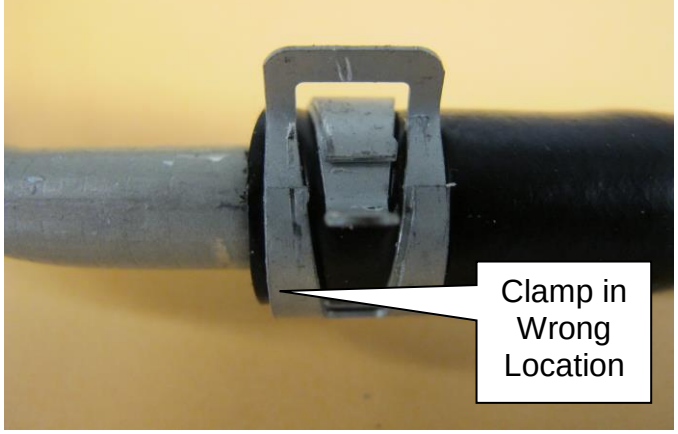

Figure 7

Clamp Not Seated Properly on Hose

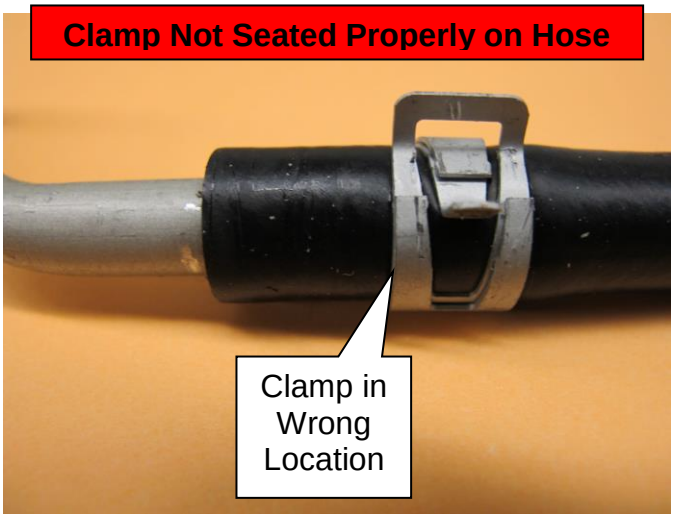

Figure 8

Hose Not Seated Properly on Barb

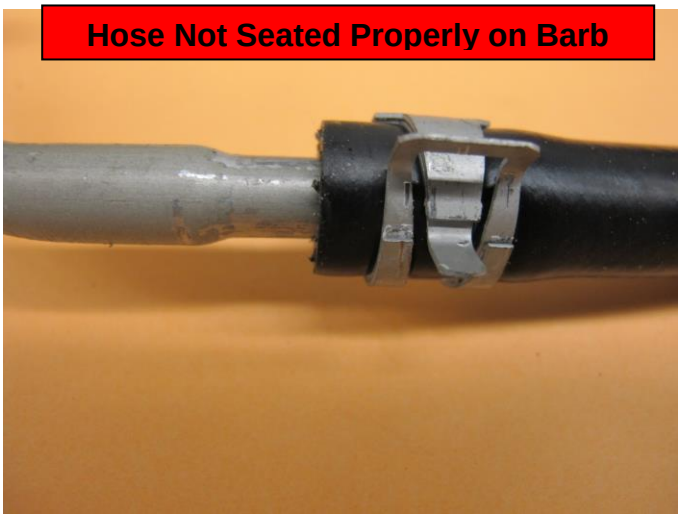

Figure 9

8. **CORRECT ANY HOSES NOT PROPERLY INSTALLED, REFERENCE <u>STEP 6</u> (FIGURE 5).**

9. Locate the A/T fluid cooler behind the front bumper (Figure 10).

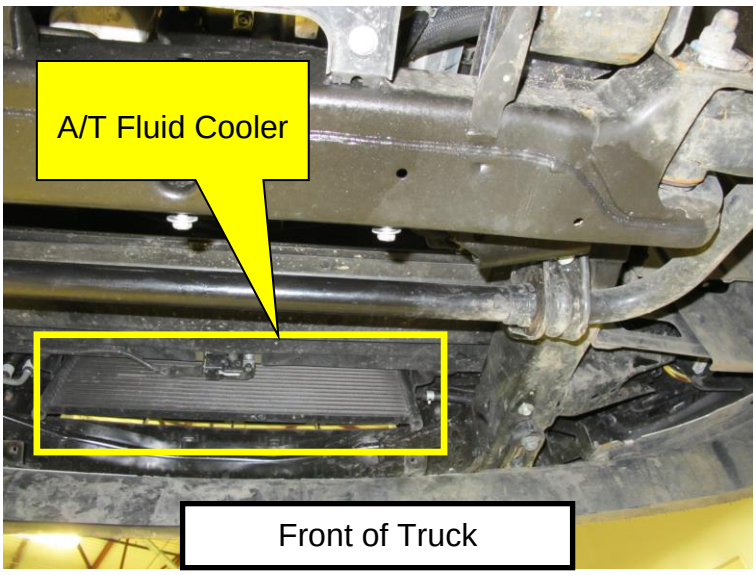

Figure 10

10. Locate the clamp connecting the A/T fluid cooler and fluid cooler tube "D". (Figure 11)

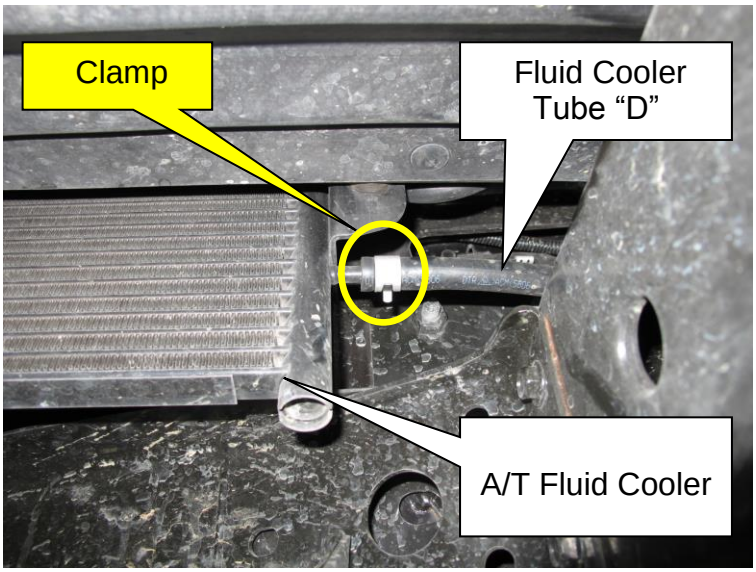

Figure 11

11. Inspect fluid cooler tube "D" for proper configuration (Figure 12).

A. A/T Fluid Cooler hose placement: Fluid cooler tube pushed to lip.

B. Clamp placement B: clamp located 5MM to 9MM or approximately (3/16 to 3/8 inch) from end of hose.

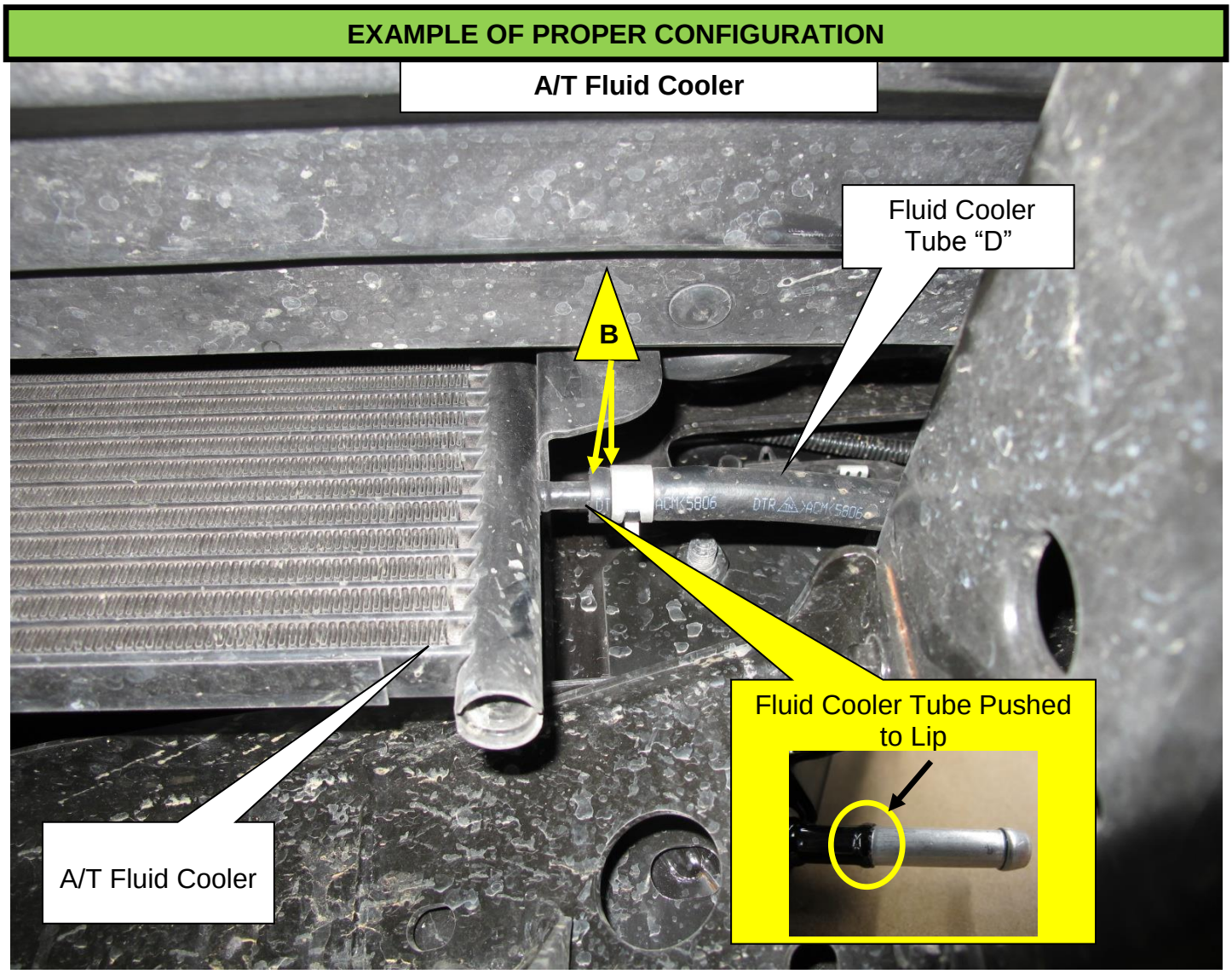

Figure 12

12. EXAMPLES OF A/T FLUID COOLER HOSE CONNECTIONS THAT REQUIRE ADJUSTMENT.

- Grenade pin not released (Figure 13).
- Clamp not seated properly on hose (Too close to the end of the hose) (Figure 14).
- Clamp not seated properly on hose (Too close to barb lip) (Figure 15).
- Hose not seated properly on barb (Check hose insertion length) (Figure 16).

EXAMPLES THAT REQUIRE HOSE OR CLAMP ADJUSTMENT

Grenade Pin Not Released

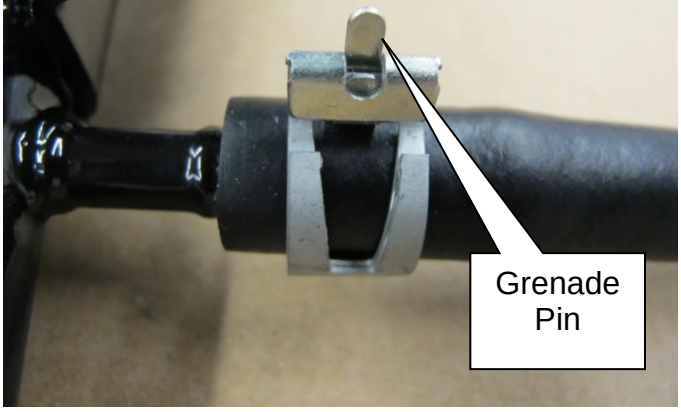

Figure 13

Clamp Not Seated Properly on Hose

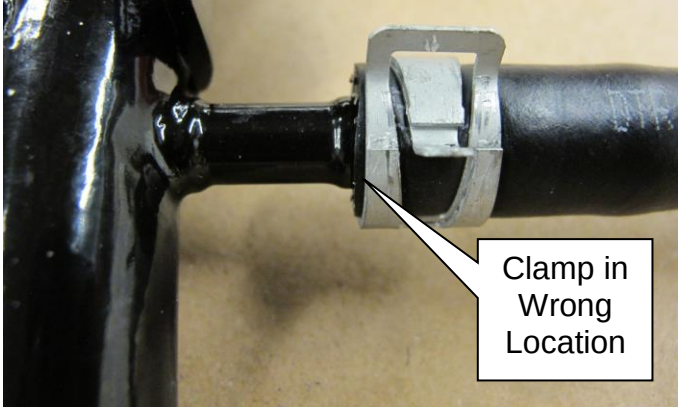

Figure 14

Clamp Not Seated Properly on Hose

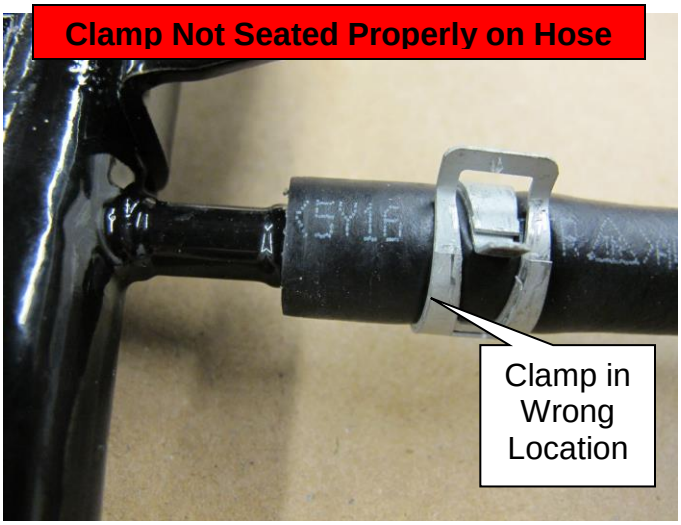

Figure 15

Hose Not Seated Properly on Barb

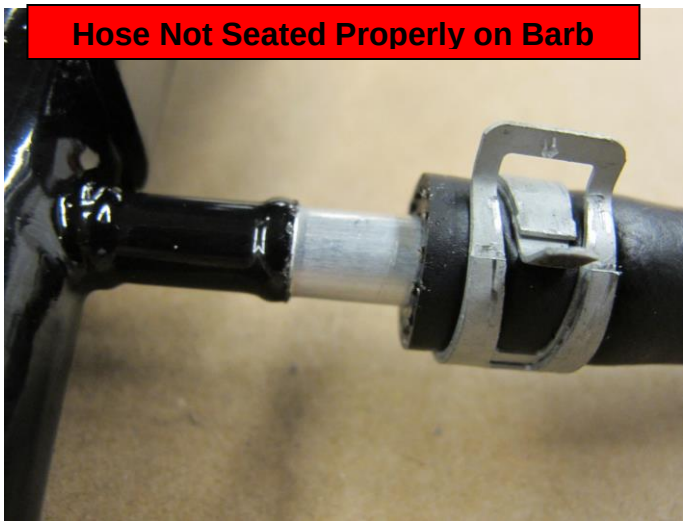

Figure 16

13. **CORRECT A/T FLUID COOLER HOSE IF NOT PROPERLY INSTALLED, REFERENCE <u>STEP 11</u> (FIGURE 12).**

- Do **<u>NOT</u>** install front under cover at this time.

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

Inspection 2: Rear Prop Shaft Bolt Torque

1. Locate the (4) rear prop shaft bolts at the transfer case (Figure 1).

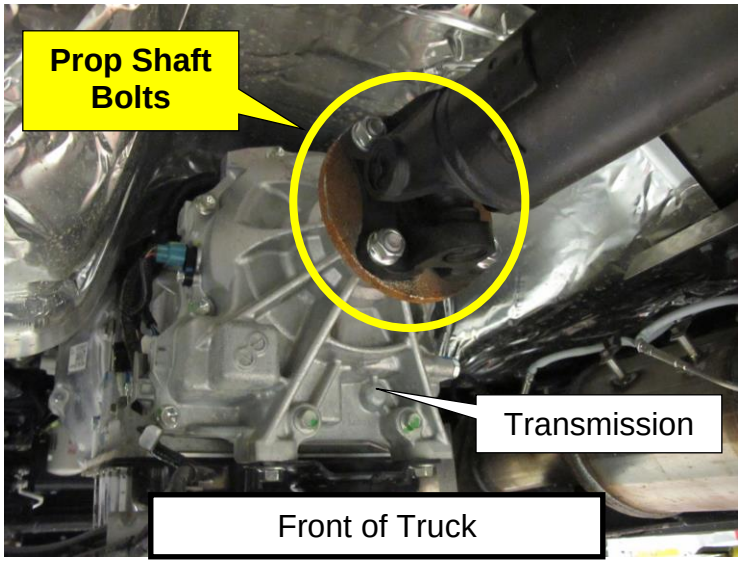

Figure 1

2. Using a suitable tool apply LIGHT to MODERATE force to one of the 19MM nuts, repeat on the other nuts (Figure 2).

   A. If **any** of the nuts move (NOT the prop shaft) **replace all 4** of the rear prop shaft bolts and nuts, (see Parts Information below).

   - Torque NEW Rear Prop Shaft bolts and nuts:
     105N·m (77 ft-lb)

   B. If nuts do not move (are tight) go to inspection 3.

3. Once Inspection is complete and all bolts have been checked for torque and/or replaced, move to Inspection 3.

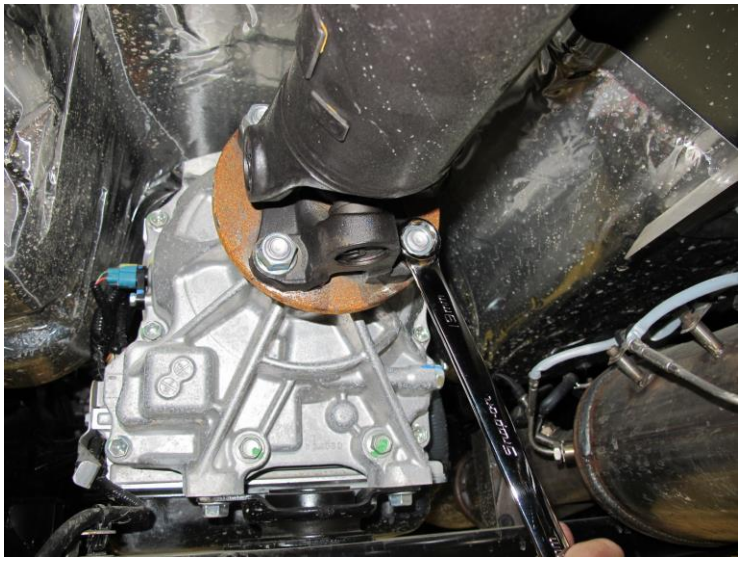
Figure 2

Inspection 3: Power Steering Pump and Bracket Torque

1. Lower the Titan on the lift and open the hood.

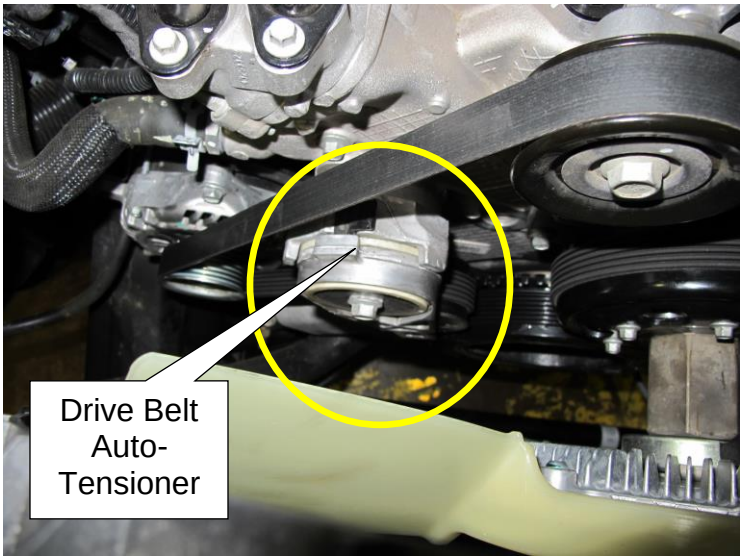

Figure 1

2. Remove serpentine belt from the power steering oil pump.

- Locate the drive belt auto-tensioner on the front passenger side of the engine and prepare to remove belt from power steering oil pump (Figure 1).
- Using a suitable tool rotate the drive belt auto-tensioner counterclockwise to release the tension (Figure 2).
- Remove the belt from the power steering oil pump pulley (Figure 3).

Figure 2

NOTE: Do not fully remove belt.

Caution: The drive belt auto-tensioner is spring-loaded and must be pivoted away from the drive belt. Pivoting in the wrong direction can result in damage to the drive belt auto-tensioner.

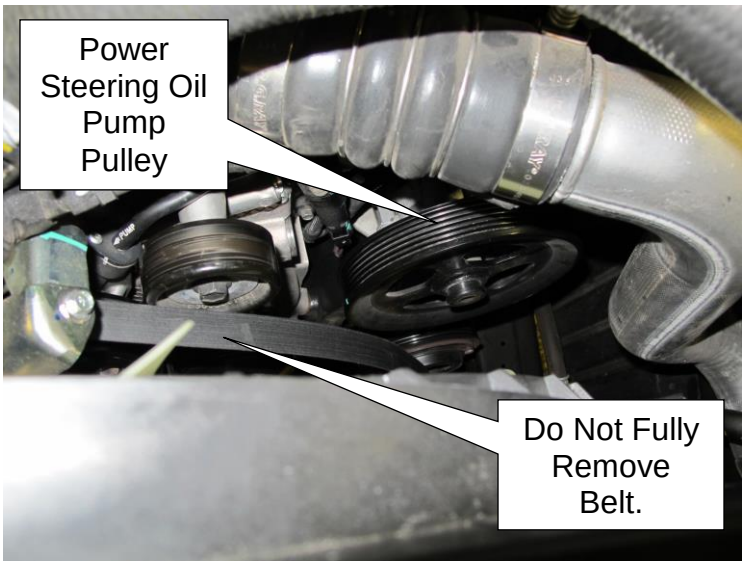

Figure 3

3. Locate power steering oil pump and the three 12MM bolts accessible through the holes in the power steering oil pump pulley (Figure 4).

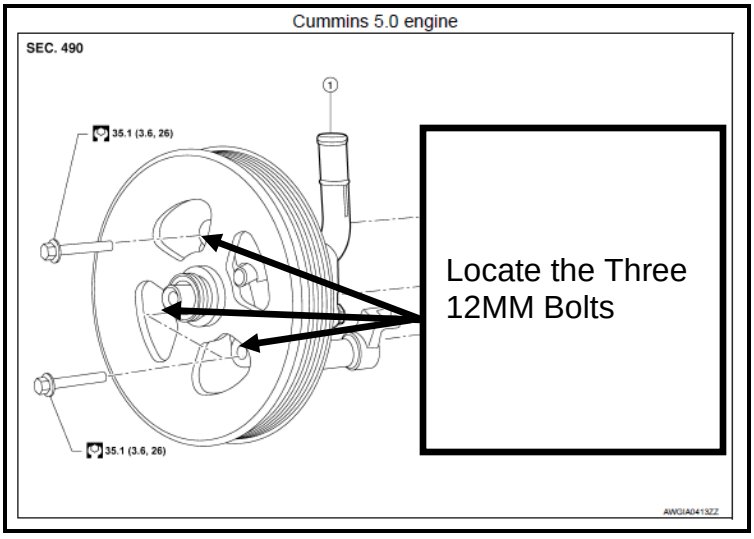

Figure 4

4. Remove the three power steering oil pump to bracket bolts using a 12MM socket (Figure 5).

Figure 5

5. Slowly reposition pump and allow to freely hang providing clearance to power steering pump bracket (Figure 6).

   Note: Do **NOT** disconnect power steering suction hose or power steering pressure line from power steering oil pump.

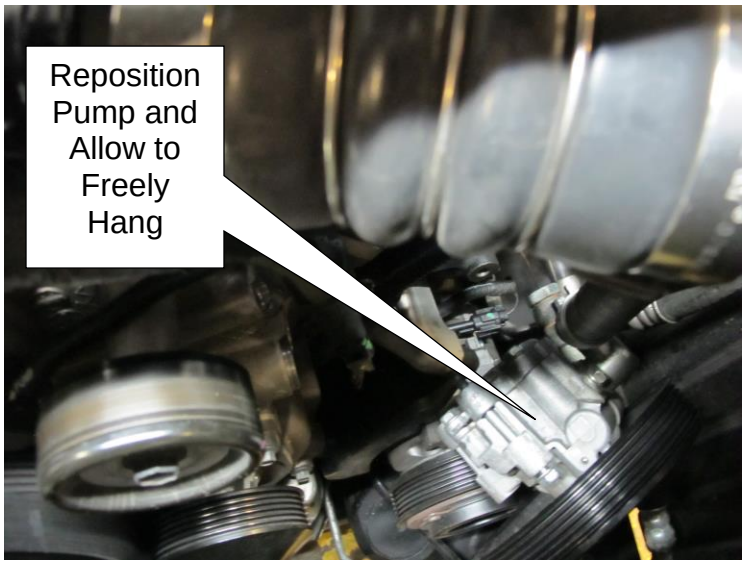

Figure 6

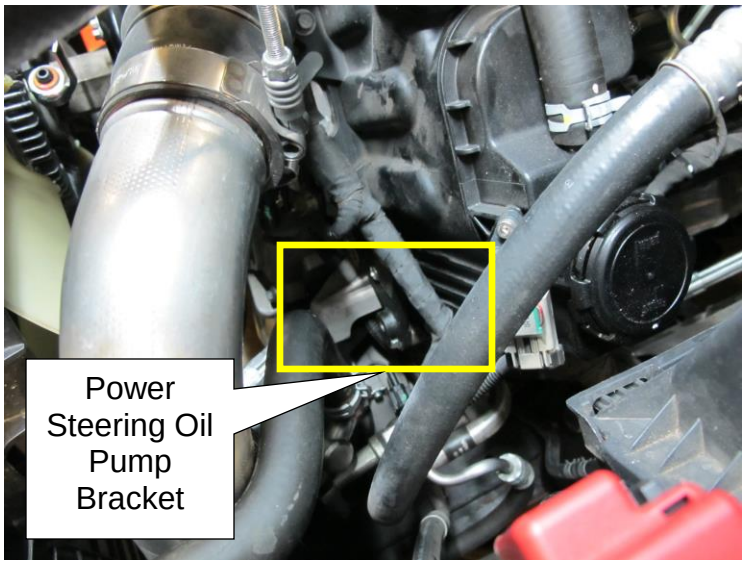

Figure 7

6. Locate the power steering oil pump bracket and the three 12MM bolts (Figure 7, 8).

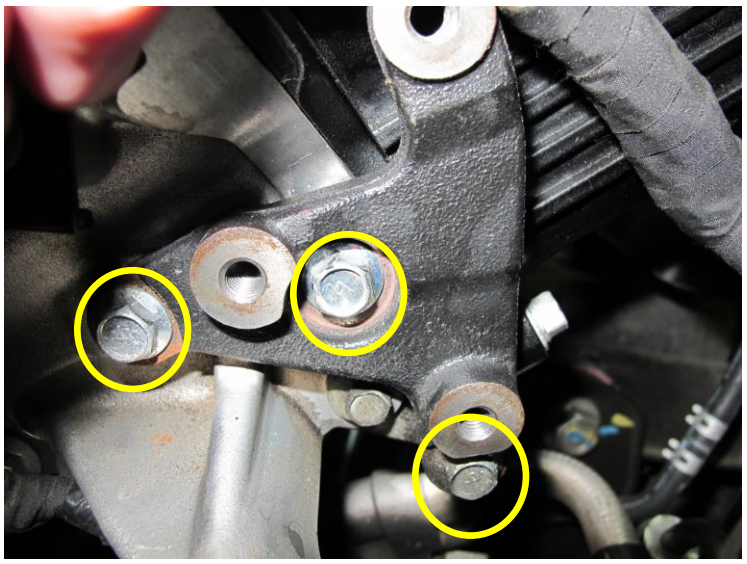
Figure 8

7. Torque the three pump bracket bolts (Figure 9): **28N·m (21 ft-lb)**

Note: If a power steering oil pump bracket bolt is missing hold vehicle, do not submit warranty claim and e-mail clear pictures of missing bolt to:

nnafqasupport@nissan-usa.com

Make sure to include the below information:

E-Mail Subject Line: PC565 – Titan XD (A61D, 2WD) Multi-Point Inspection

Attach Clear Pictures of the Power Steering Oil Pump Bracket with missing bolt
Dealer Name
Dealer Code
Dealer Address
VIN
Contact Person Name
Contact Person Phone Number

Nissan FQA will review the E-mail submissions within 48 hours of receipt and send the necessary repair instructions and claim information.

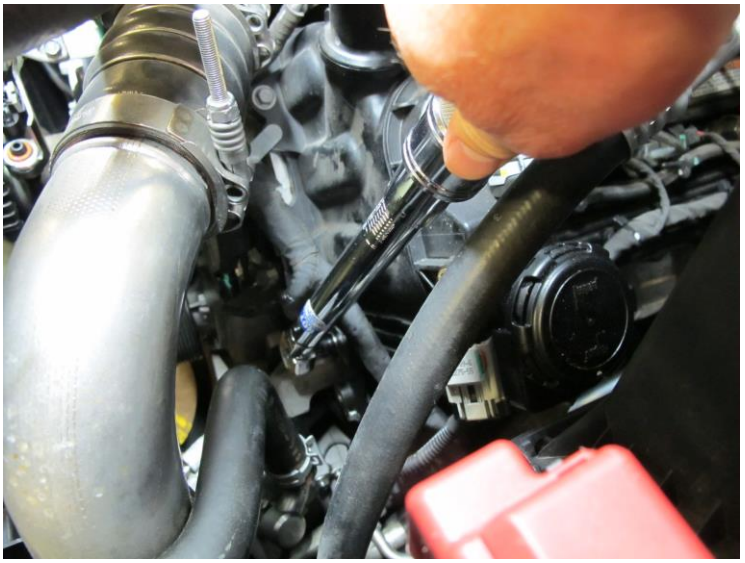

Figure 9

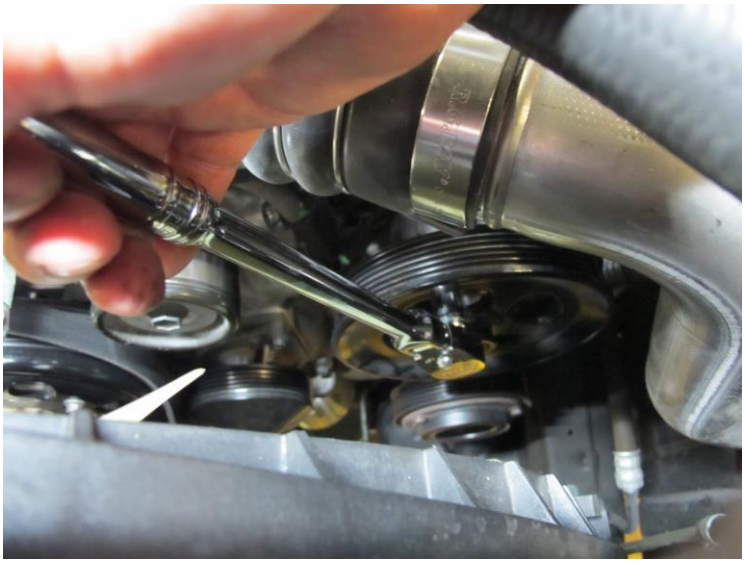

Figure 10

8. Re-install the power steering oil pump (Figure 10).

   - Align bolt holes.
   - Install and hand-tighten the three 12MM power steering oil pump to bracket bolts.

Figure 11

9. Torque the three pump to bracket bolts (Figure 11): **35.1N-m (26 ft-lb)**

10. Install the serpentine belt.

- Using a suitable tool rotate the drive belt auto-tensioner counterclockwise to release the tension providing slack for belt install (Figure 12).

Figure 12

- Ensure belt is properly routed (Figure 13).

Caution: The drive belt auto-tensioner is spring-loaded and must be pivoted away from the drive belt. Pivoting in the wrong direction can result in damage to the drive belt auto-tensioner.

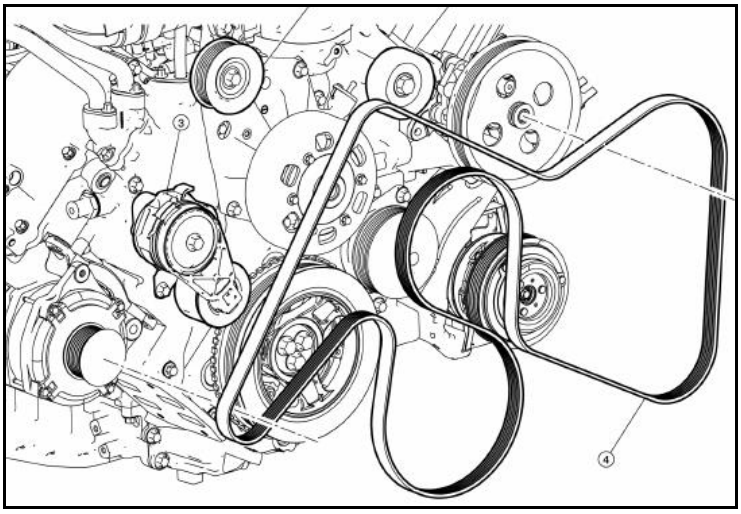

Figure 13

11. Inspection complete, raise vehicle back up on lift and move to inspection 3.

Inspection 4: 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).

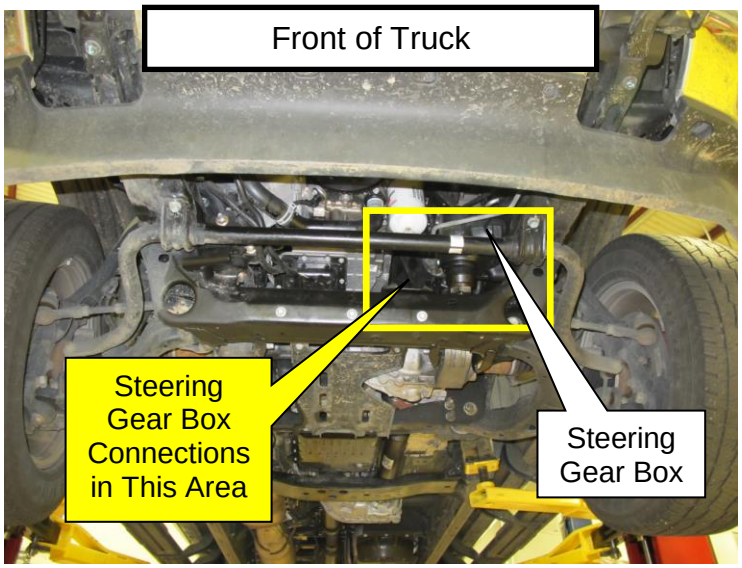

Figure 1

Note: 4WD shown 2WD similar.

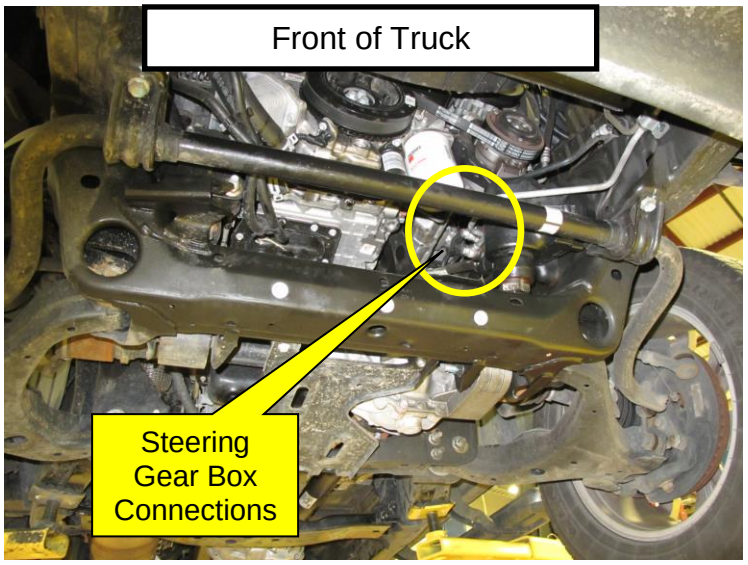

Figure 2

2. Inspect for **LEAKS** between the Steering Gear Box and Power Steering Hose Assembly (Pressure) and Power Steering Hose Assembly (Return) eye bolt connections (Figure 3).

   - If **NO LEAK** found, inspection is complete, proceed to step 11 to install front under cover.
   - If **LEAK** found, proceed to step 3.

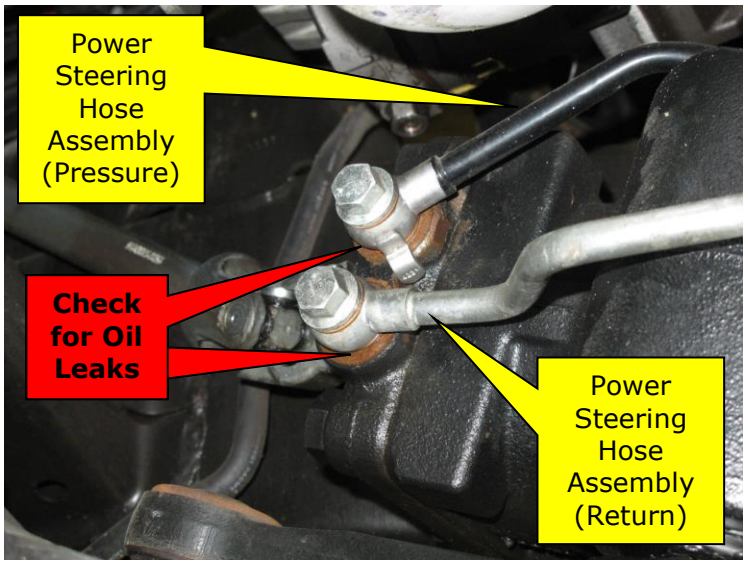

Figure 3

3. Remove Power Steering Hose Assembly (Pressure) bracket bolt (Figure 4).

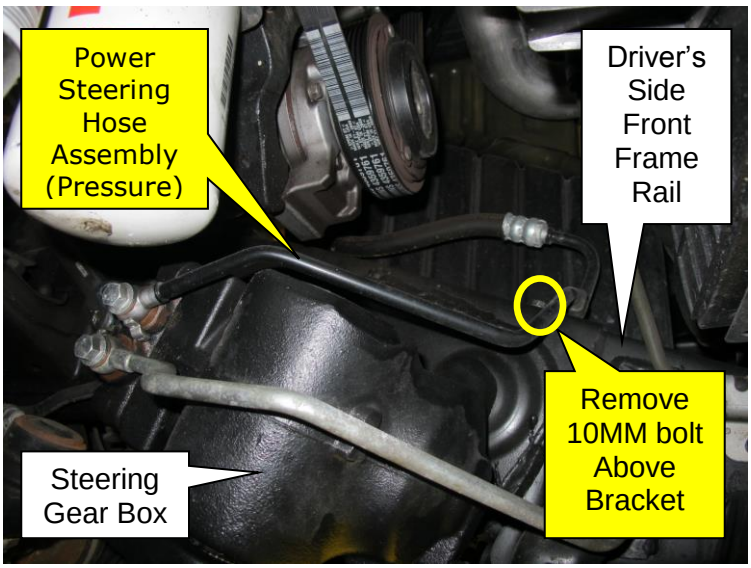

Figure 4

4. Remove Power Steering Hose Assembly (Return) bracket bolts (Figure 5).

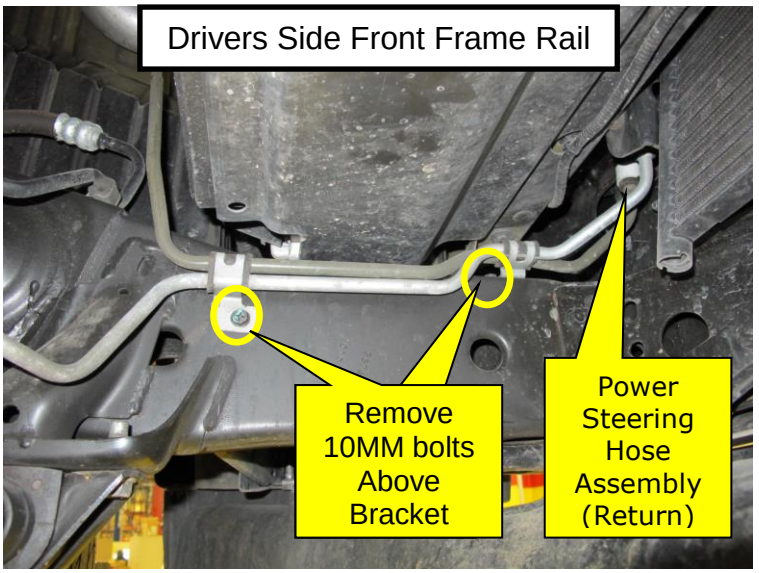

Figure 5

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.

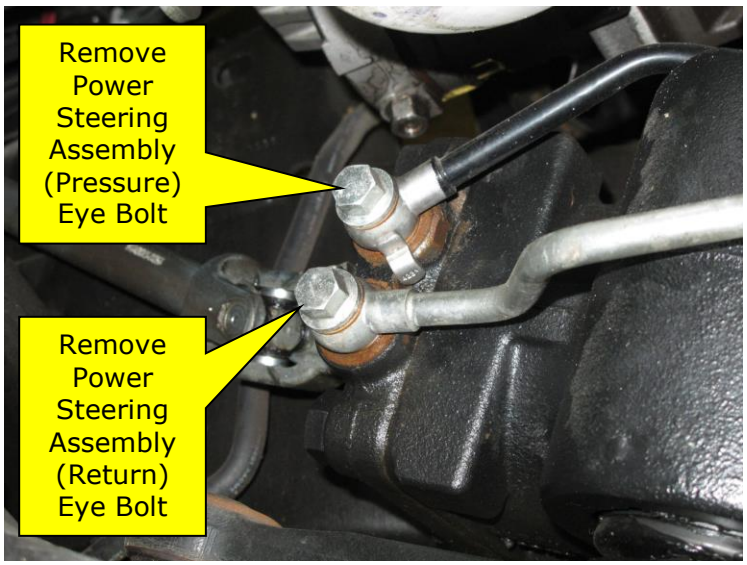

Figure 6

6. Install Power Steering Hose Assembly (Pressure & Return) connection eye bolts with four <u>new copper sealing washers</u> (Figure 7).

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

   Caution: Do not reuse copper sealing washers.

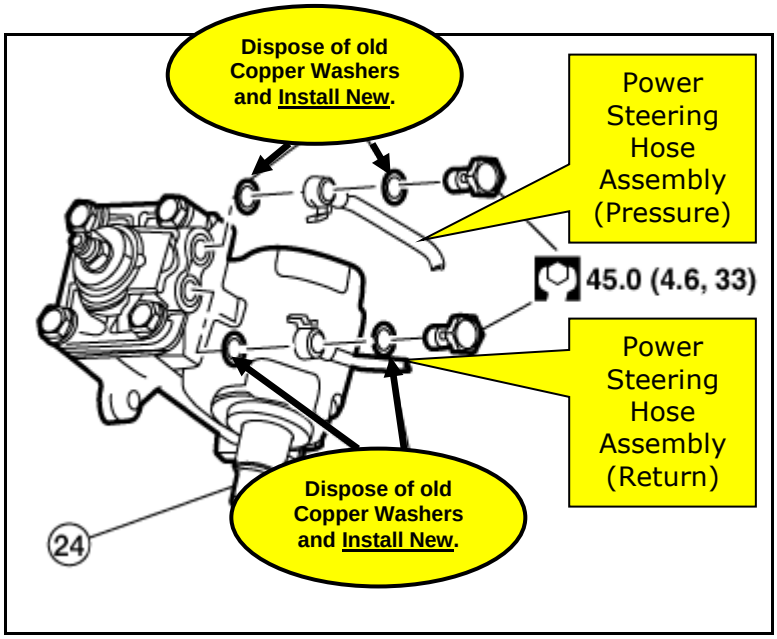

Figure 7

7. Reinstall Power Steering Hose Assembly (Pressure) bracket bolt (Figure 8).

   - Torque bolts to **3.4N.m (20 in-lb)**

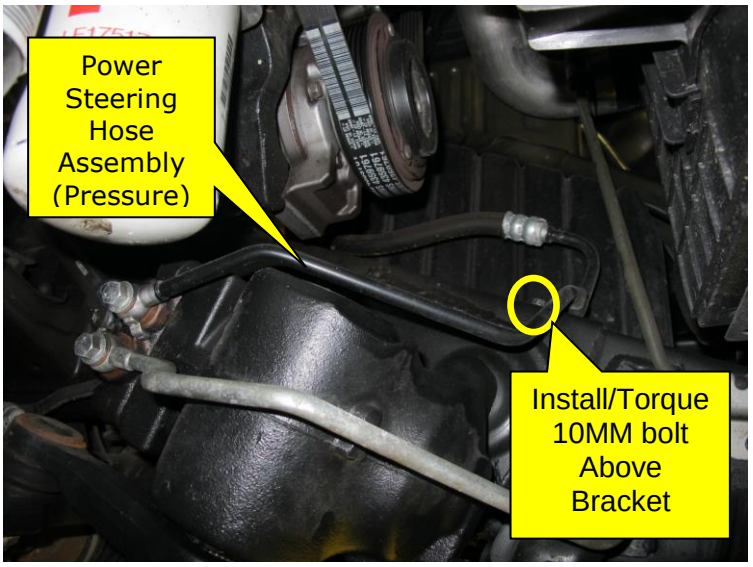

Figure 8

8. Reinstall Power Steering Hose Assembly (Return) bracket bolts (Figure 9).

   - Torque bolts to **9N.m (80 in-lb)**

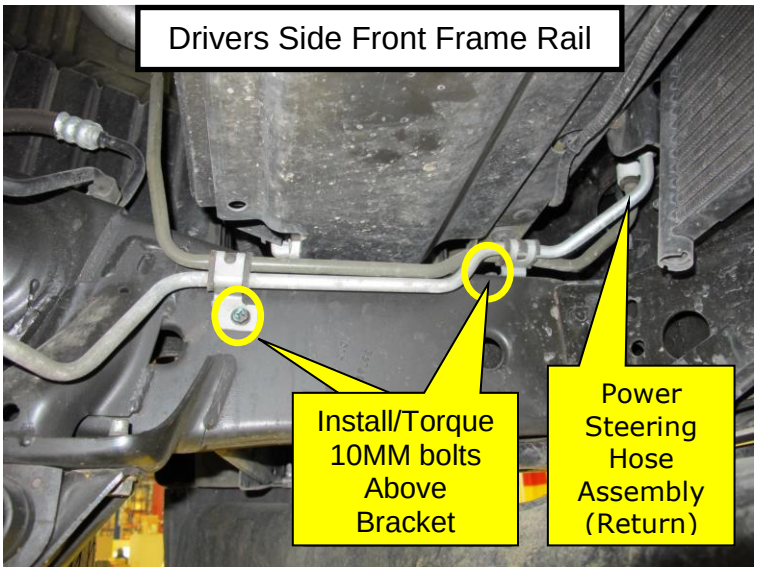

Figure 9

9. Proceed to step 10 for refilling and air bleeding the hydraulic system.

10. **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.

11. Install front under cover.

- Install the (6) front under cover bolts: torque to **13.5N.m (10 ft-lb)**

12. Submit a warranty claim using the claims information for the Inspection/Repairs completed.

13. Release the vehicle, inspection complete.

Inspection 1: A/T Fluid Leak Inspection

PARTS INFORMATION: (NOT REQUIRED)

Inspection 2: Rear Prop Shaft Bolt Torque

PARTS INFORMATION:

Description	Quantity	Part #
Bolt-Fix Propel	4	37120-5X00A
Nut-Fix Propel	4	37171-5X00A

Inspection 3: Power Steering Pump and Bracket Torque

PARTS INFORMATION: (NOT REQUIRED)

Inspection 4: Power Steering Box Leak

PARTS INFORMATION:

Description	Quantity	Part #
Washer-Lock (Same for both lines)	4	49726-50W00
Genuine NISSAN Power Steering Fluid or Equivalent	2 Max	999MP-AG000P

CLAIMS INFORMATION

Submit claim using the following claims coding:

Work Order Line Type: "CM" Campaign

Campaign: PC565

Claim Type:	CM			
PNC:	PC565			
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. Rear Prop Shaft Bolt Torque 3. Power Steering Pump and Bracket Torque 4. Power Steering Box Leak	PC5650	0.7 Hr	No	No
INSPECTION 4 - Repair				
A/T Fluid Leak Inspection, Rear Prop Shaft Bolt Torque, Power Steering Pump and Bracket Torque, Power Steering Box Leak Replace 4 Copper Washers: Power Steering Hose Assembly Pressure & Return Connections	PC5651	1.7 Hr	Yes	No
COMBINATION CODES BELOW CAN BE USED IN ADDITION TO PC5650, AND PC5651 IF REPAIR IS REQUIRED				
Replace Rear Prop Shaft (4) bolts and (4) nuts; Torque to spec	PC5652	0.2 Hr	Yes	No