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QUALITY ACTION

CAMPAIGN BULLETIN

Automatic Transmission Dealer Inventory

Reference: PC566
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- 4WD	NA	3,366	April 28, 2017	NO

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

Nissan is conducting a dealer inventory quality action to perform several inspections on **3,366** specific 2017 Titan XD Diesel 4-wheel drive vehicles identified in Service Comm.

Dealer will perform the following:

- A/T Fluid Cooler Leak Inspection
- Rear Prop Shaft Bolt Torque Inspection
- Front 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. PC566**
 - **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



PC566 – TITAN XD (A61D, 4WD) 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).

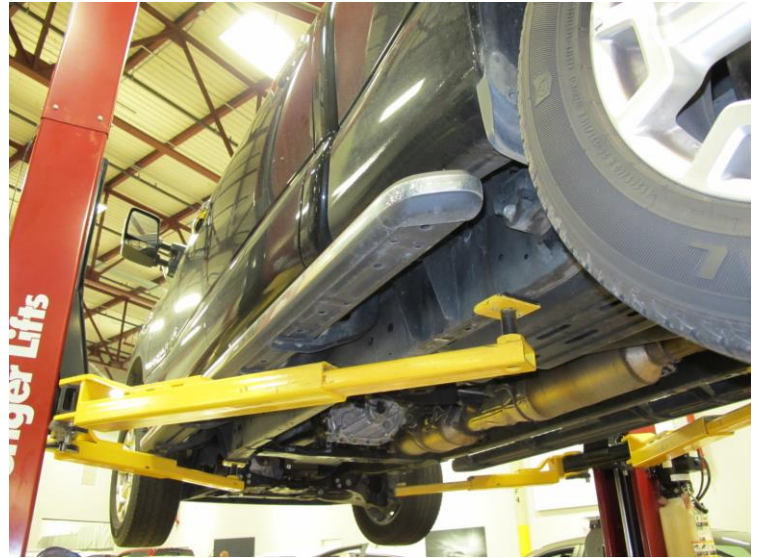


Figure 1

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

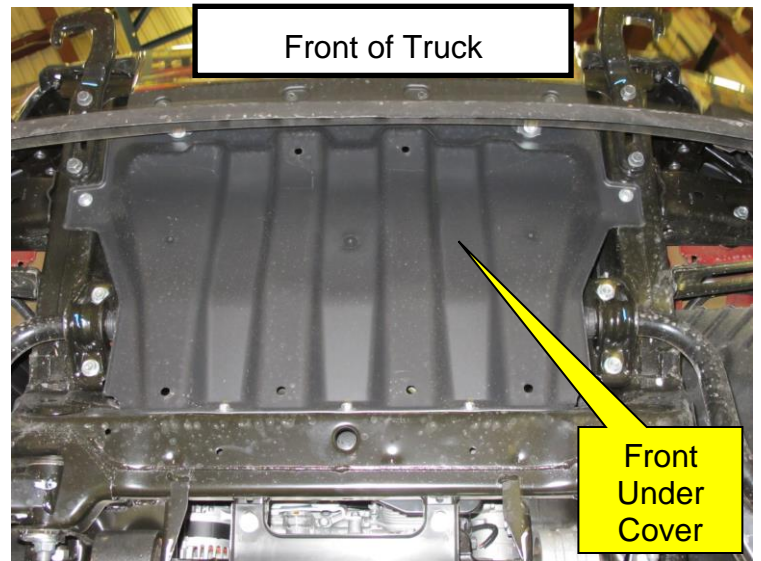


Figure 2

4. Remove the front under cover.

- Standard: Remove the (7) front under cover bolts (Figure 3).
- Pro-4X: loosen the (3) bolts and remove the (4) hex head bolts (Figure 4).

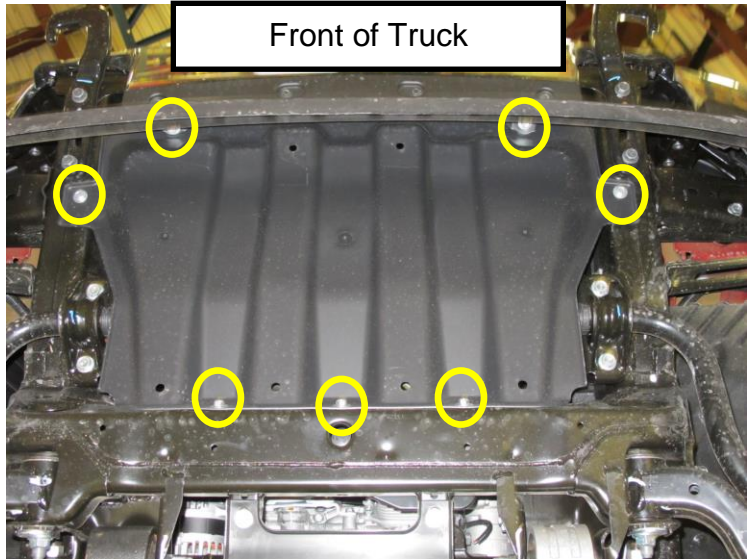


Figure 3

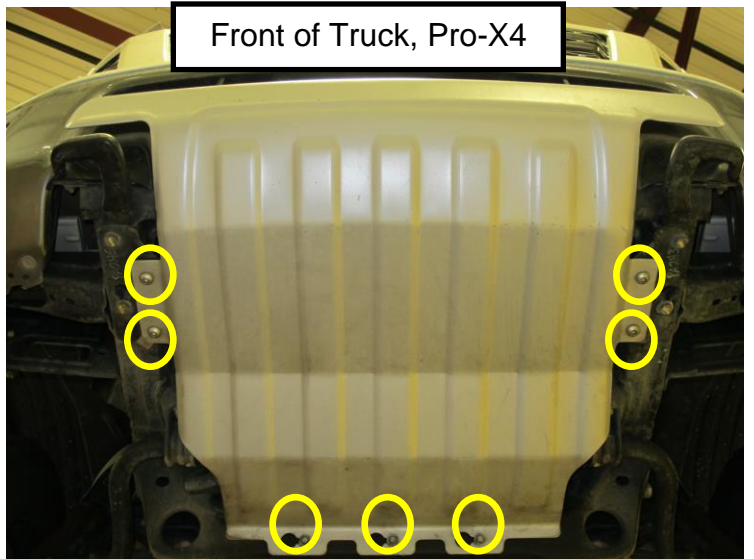


Figure 4

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

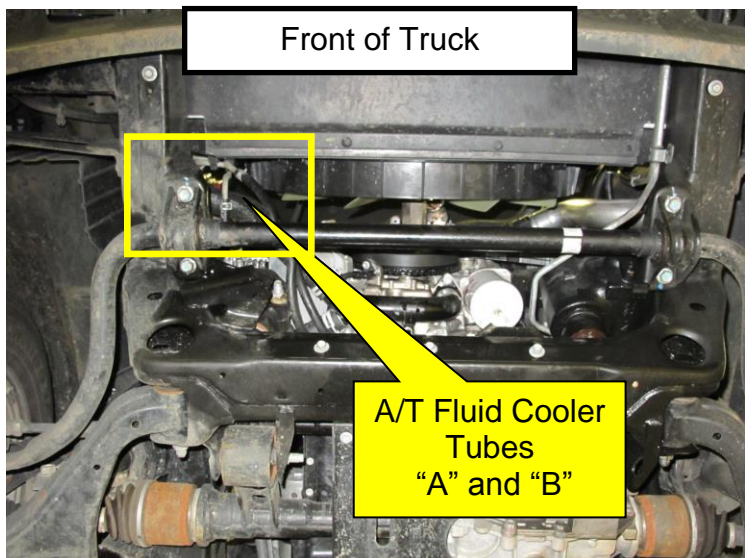


Figure 5

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

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.

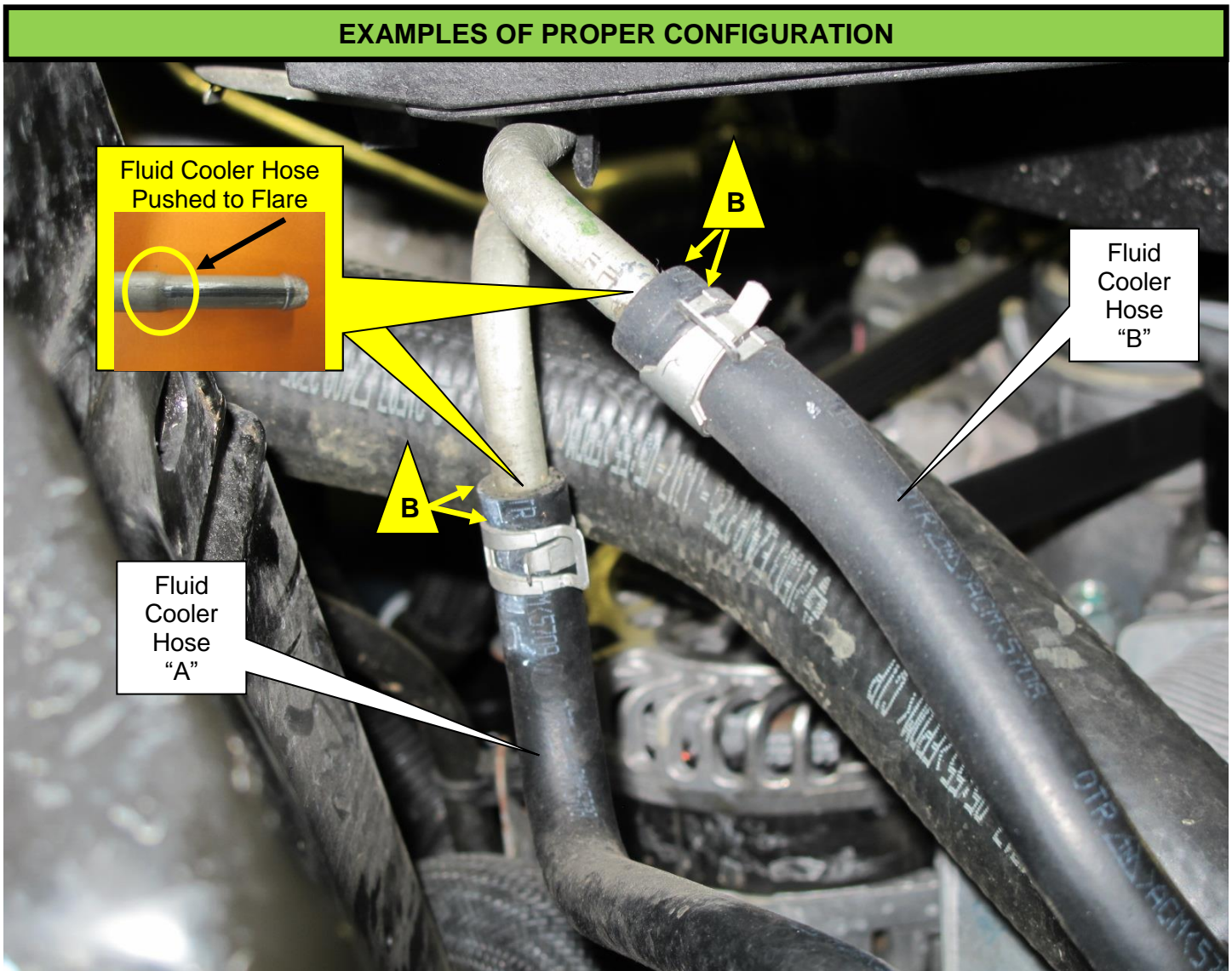


Figure 6

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

- Grenade pin not released (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 placement not correct (Check hose insertion length) (Figure 10).

EXAMPLES THAT REQUIRE HOSE OR CLAMP ADJUSTMENT

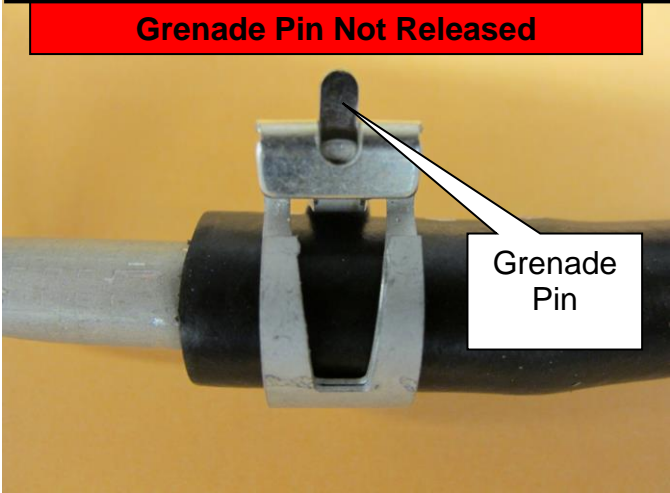


Figure 7

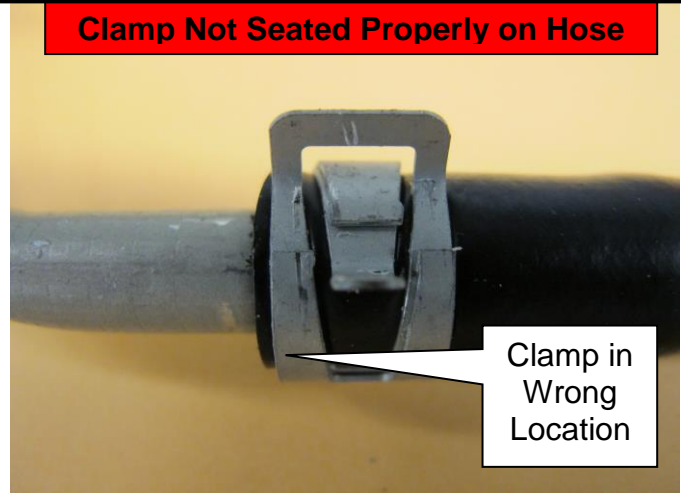


Figure 8

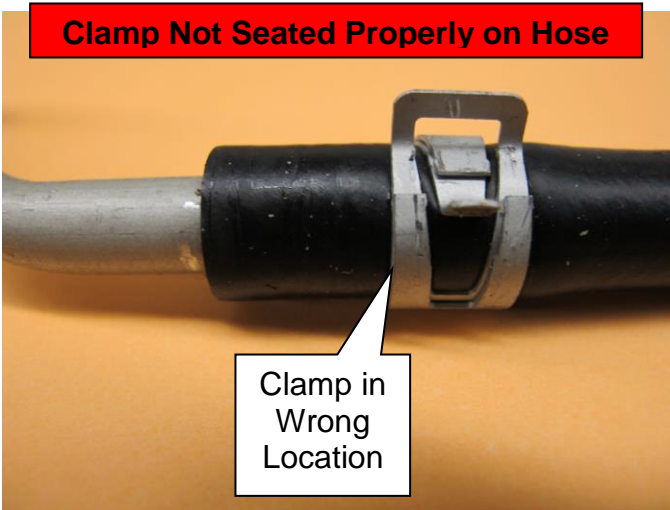


Figure 9

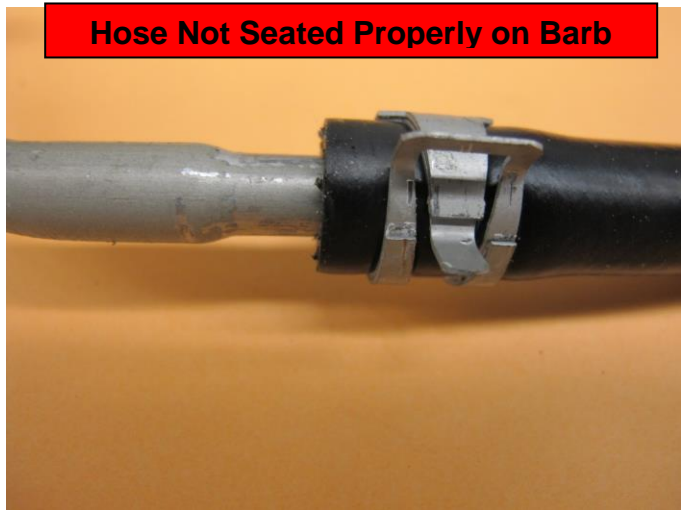


Figure 10

8. CORRECT ANY HOSES NOT PROPERLY INSTALLED, REFERENCE STEP 6 (FIGURE 6).

9. Locate the A/T fluid cooler behind the front bumper (Figure 11).

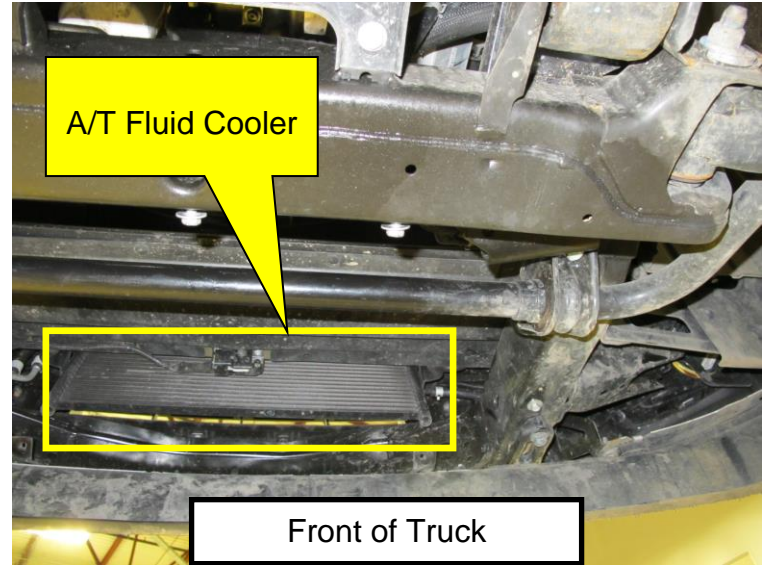


Figure 11

10. Locate the clamp connecting the A/T fluid cooler and fluid cooler tube "D". (Figure 12)

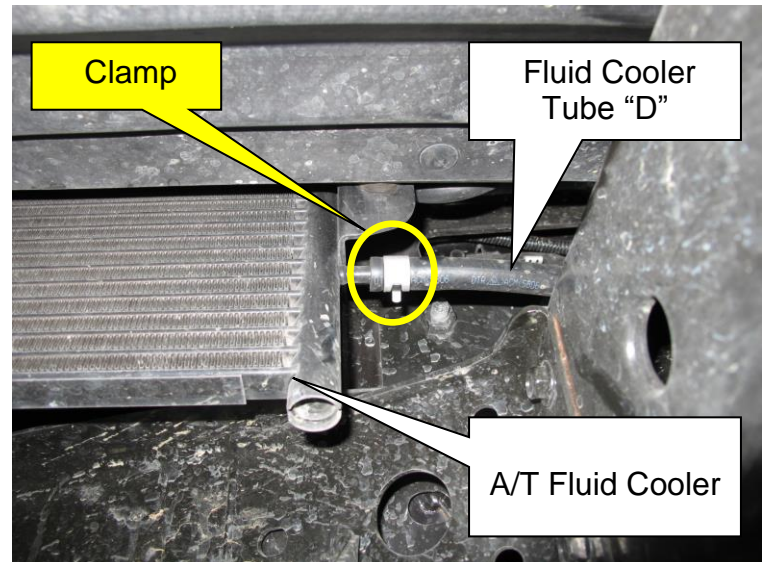


Figure 12

11. Inspect fluid cooler tube "D" for proper configuration (Figure 13).

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.

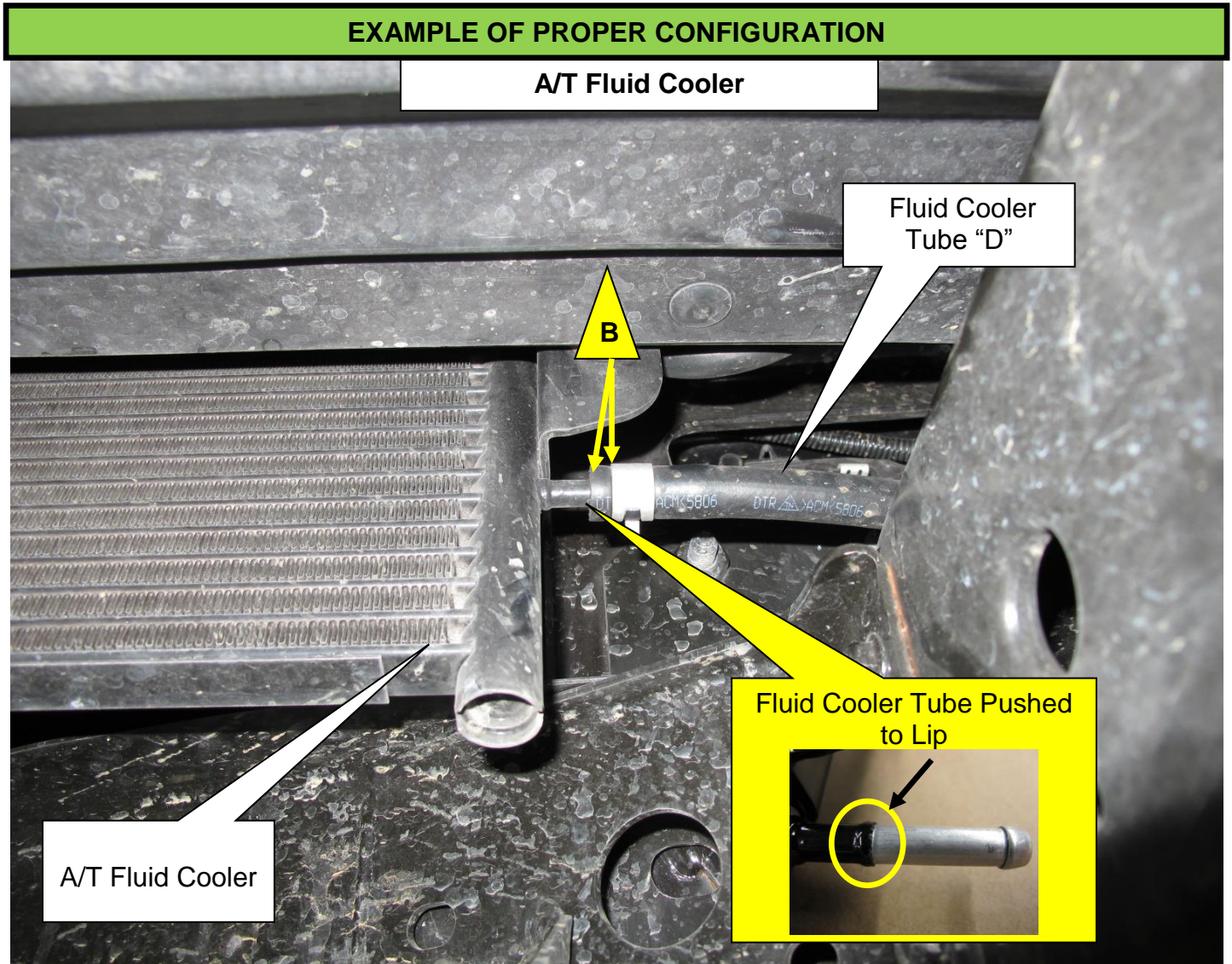


Figure 13

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

- Grenade pin not released (Figure 14).
- Clamp not seated properly on hose (Too close to the end of the hose) (Figure 15).
- Clamp not seated properly on hose (Too close to barb lip) (Figure 16).
- Hose not seated properly on barb (Check hose insertion length) (Figure 17).

EXAMPLES THAT REQUIRE HOSE OR CLAMP ADJUSTMENT

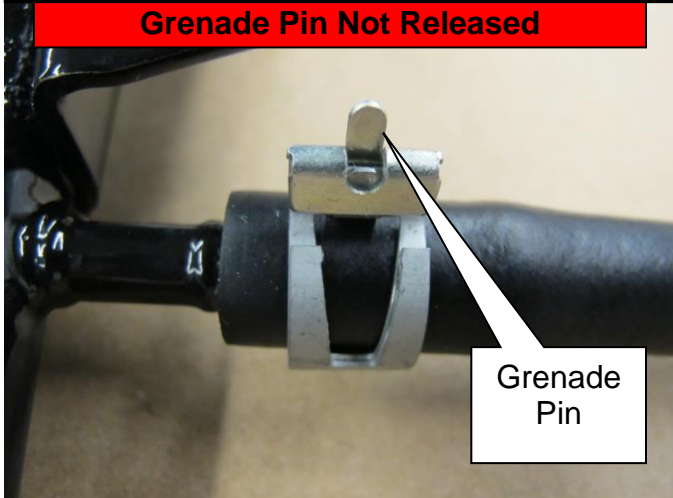


Figure 14

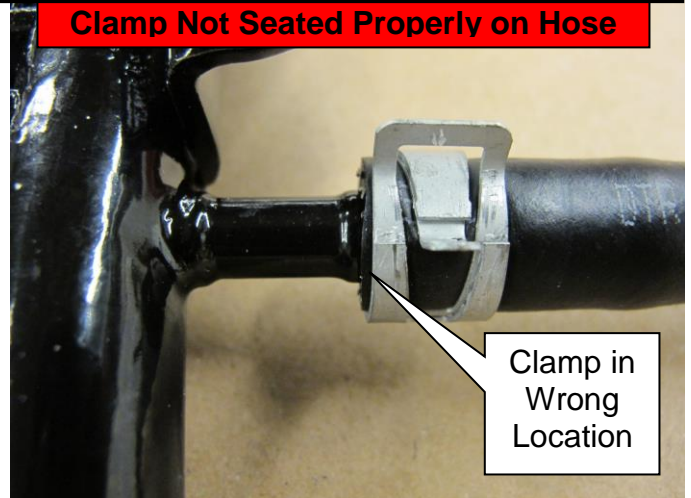


Figure 15

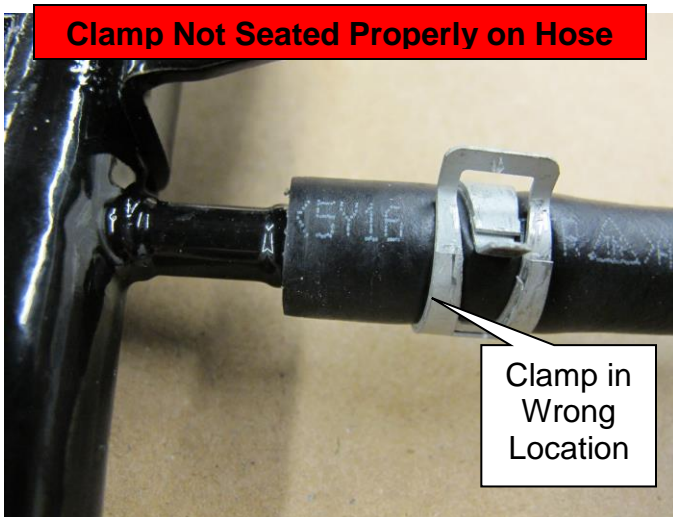


Figure 16

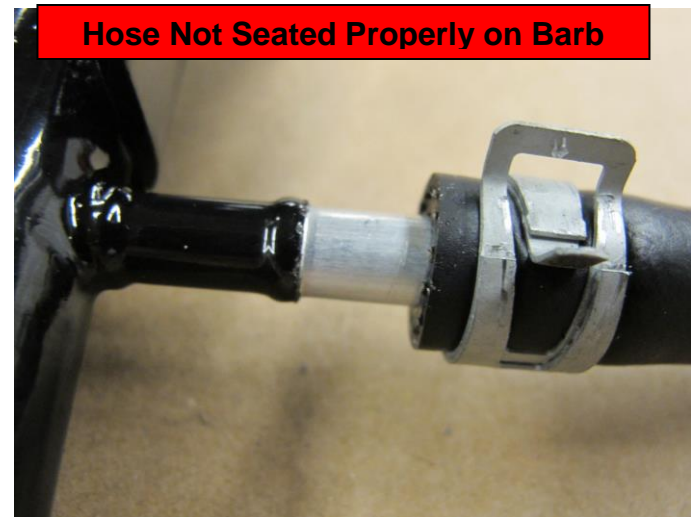


Figure 17

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

- Do **NOT** 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).

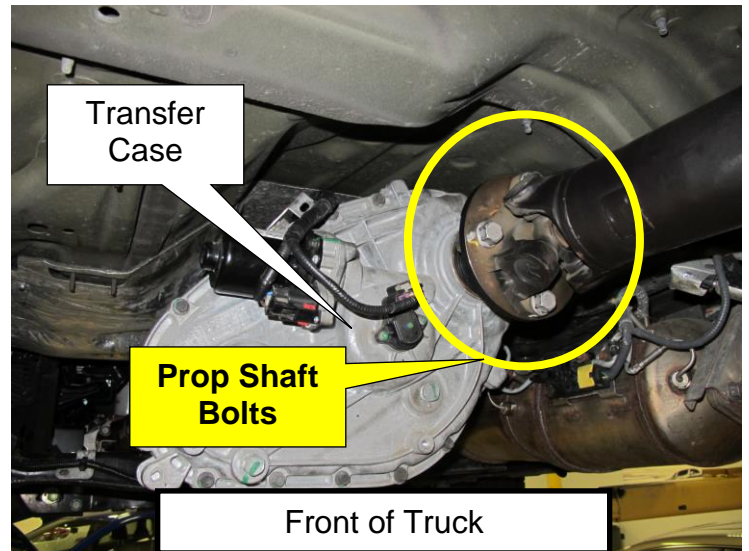


Figure 1

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.



Figure 2

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

Inspection 3: Front Prop Shaft Bolt Torque

1. Locate the (4) front prop shaft bolts at the front differential (Figure 1).

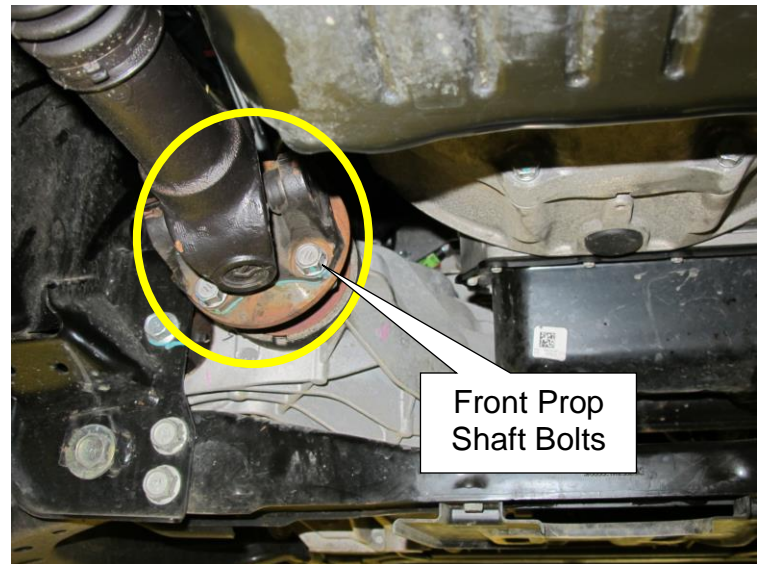


Figure 1

2. Place a 17MM box end wrench on one of the inside nuts, while holding the Prop Shaft in place apply LIGHT to MODERATE force, repeat on the other bolts. (Figure 2):
 - A. If **any** of the nuts move (NOT the prop shaft) **replace all 4** of the front prop shaft bolts and nuts, (see Parts Information below).
 - Torque NEW Front Prop Shaft bolts and nuts:
80N·m (59 ft-lb)
 - B. If nuts do not move (are tight) go to Inspection 4.
3. Once Inspection is complete and all bolts have been checked for torque and/or replaced, move to Inspection 4.



Figure 2

Inspection 4: Power Steering Pump and Bracket Torque

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

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).

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.

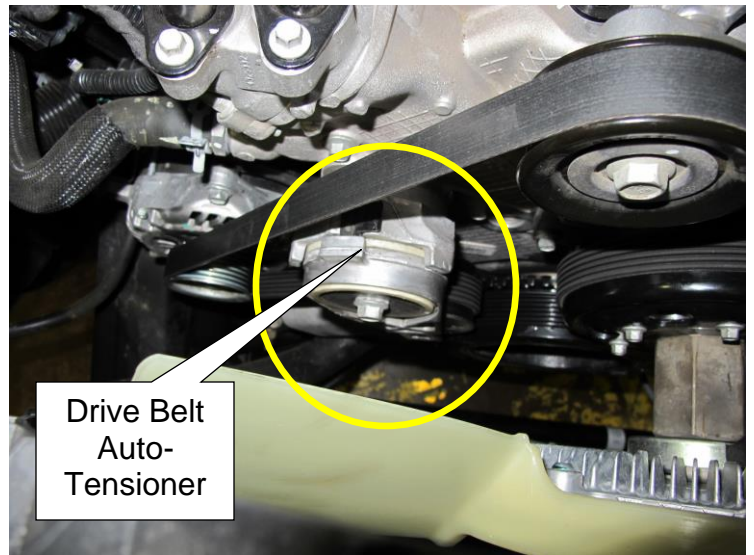


Figure 1



Figure 2

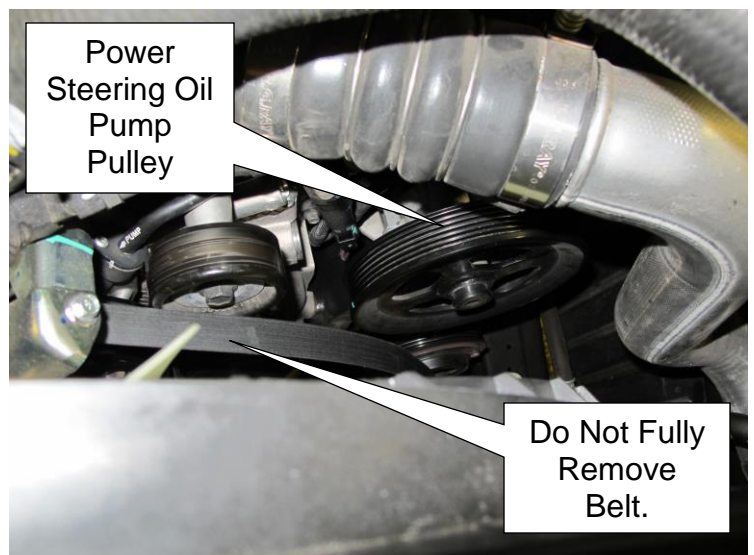


Figure 3

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

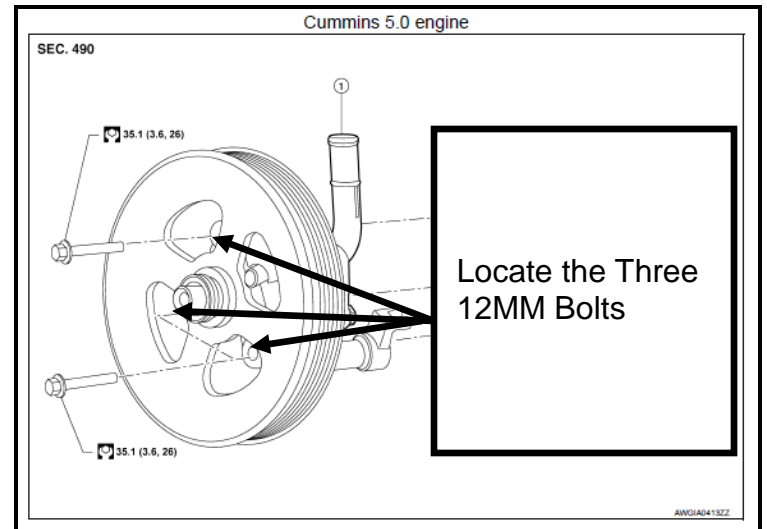


Figure 4

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.

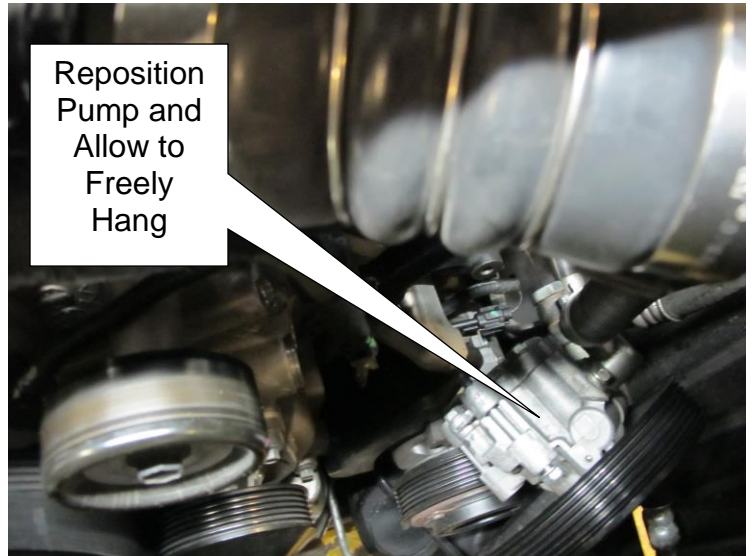


Figure 6

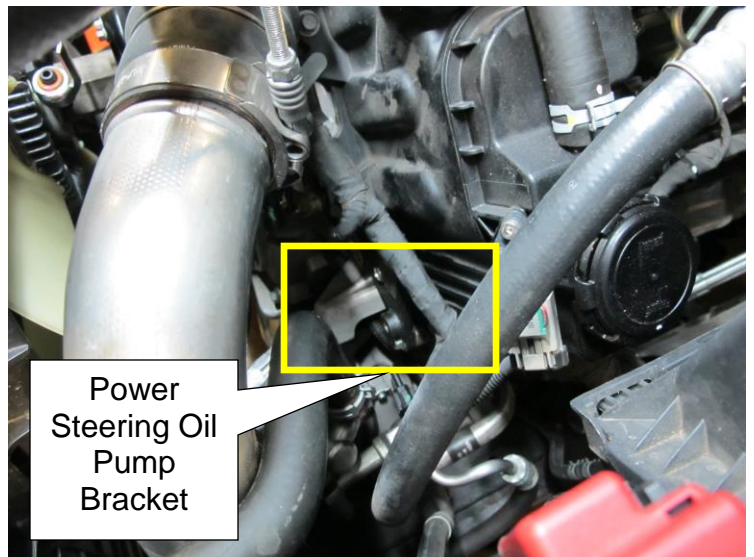


Figure 7

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

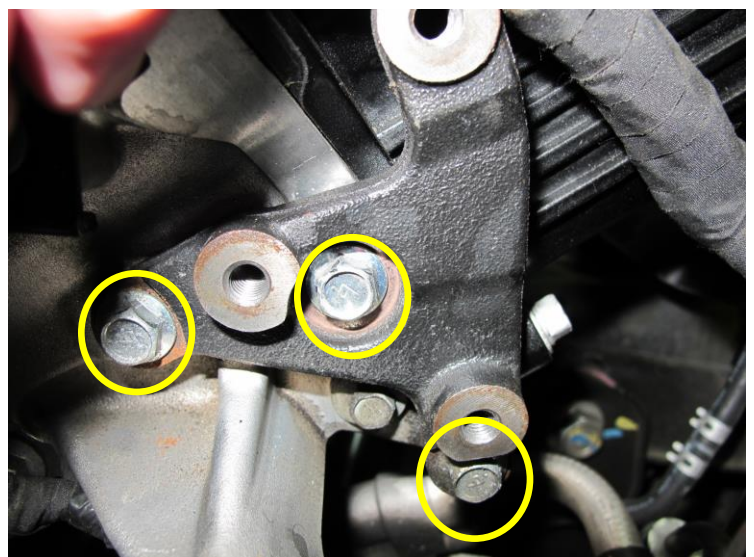


Figure 8

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:

nafgasupport@nissan-usa.com

Make sure to include the below information:

E-Mail Subject Line: PC566 – Titan XD (A61D, 4WD) 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.

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.

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

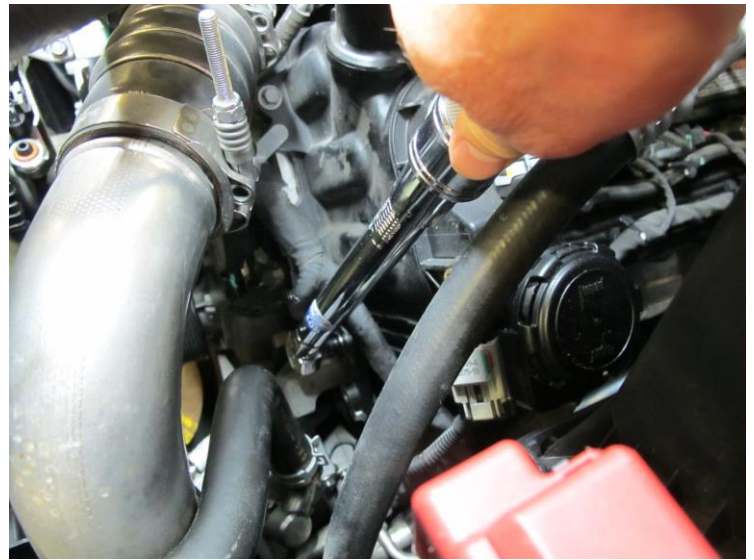


Figure 9



Figure 10



Figure 11

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 13).
- 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 12

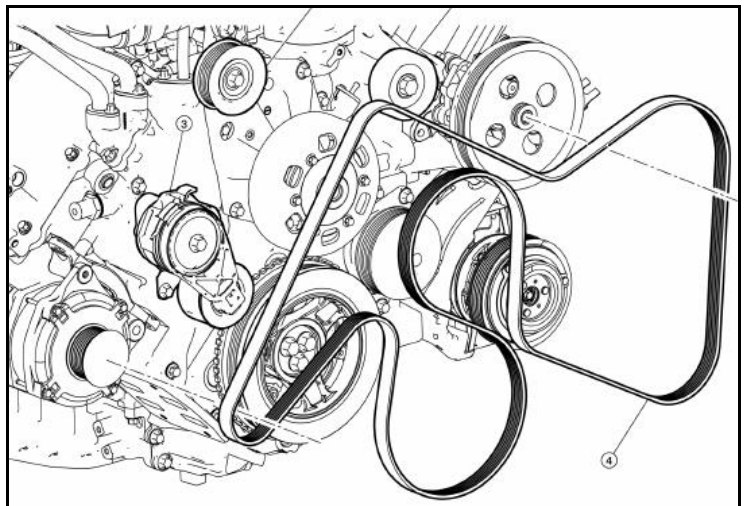


Figure 13

11. Inspection complete, raise vehicle back up on lift and move to inspection 5.

Inspection 5: 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).

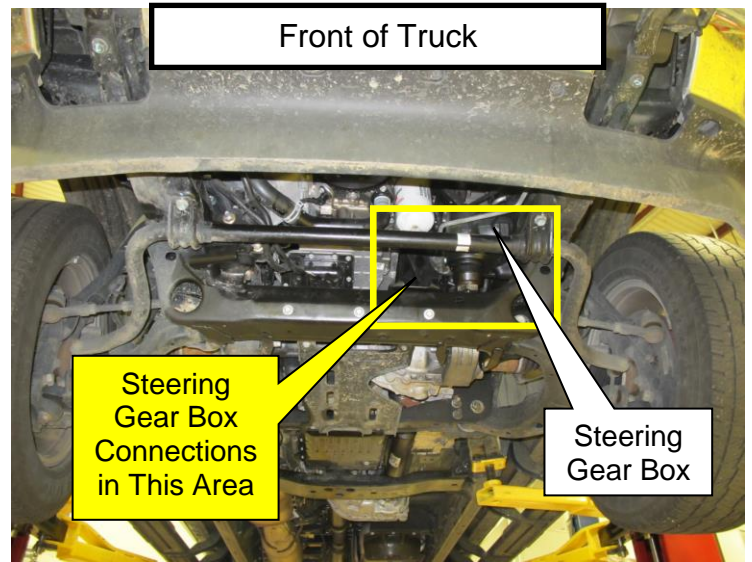


Figure 1

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).

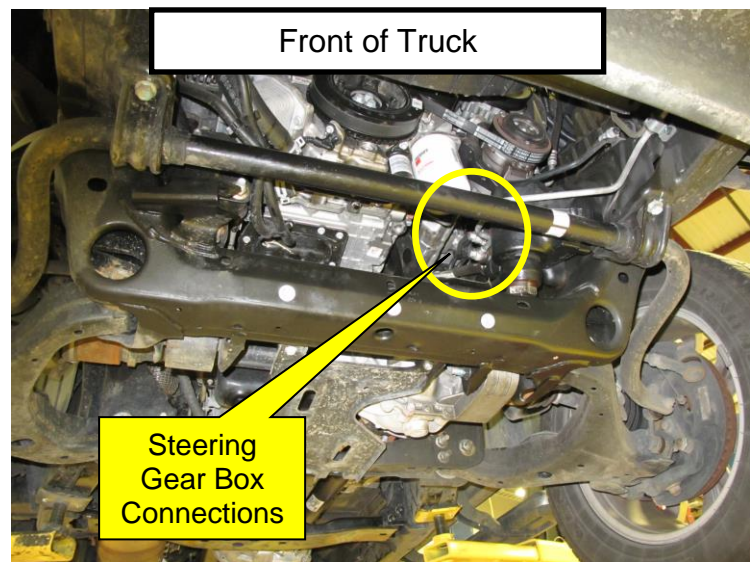


Figure 2

- If **NO LEAK** found, inspection is complete, proceed to step 13 to install front under cover.
- If **LEAK** found, proceed to step 3.

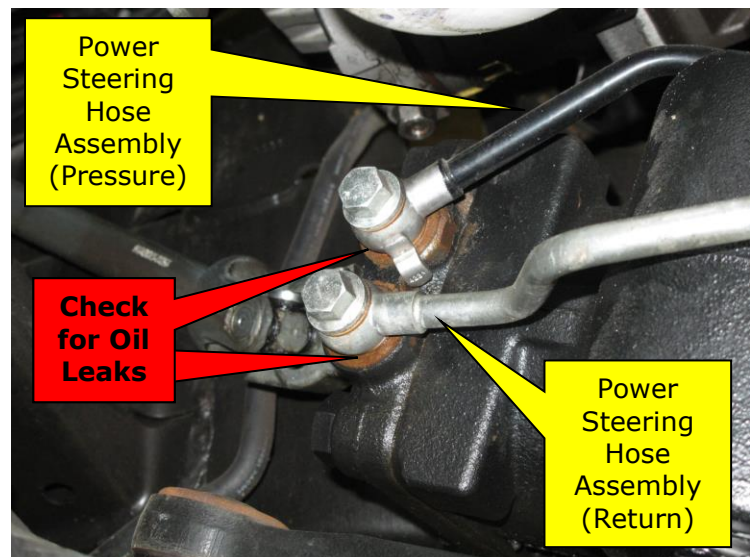


Figure 3

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

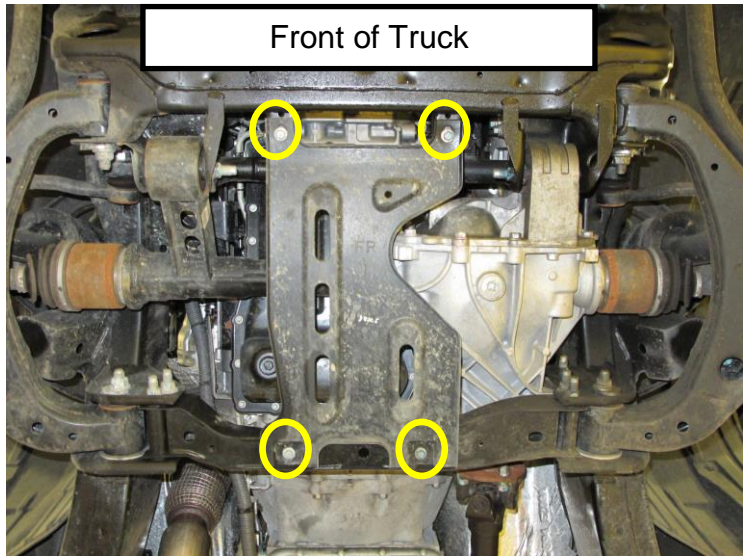


Figure 4

4. Remove Power Steering Hose Assembly (Pressure) bracket bolt (Figure 5).

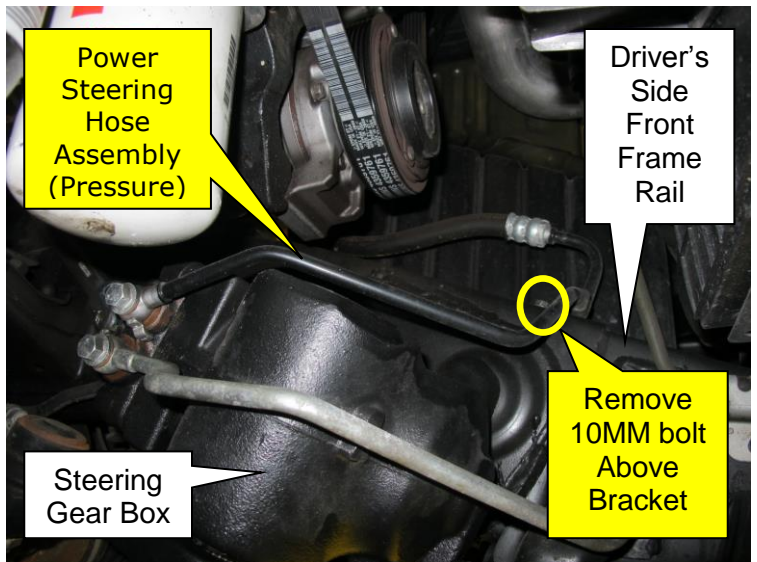


Figure 5

5. Remove Power Steering Hose Assembly (Return) bracket bolts (Figure 6).

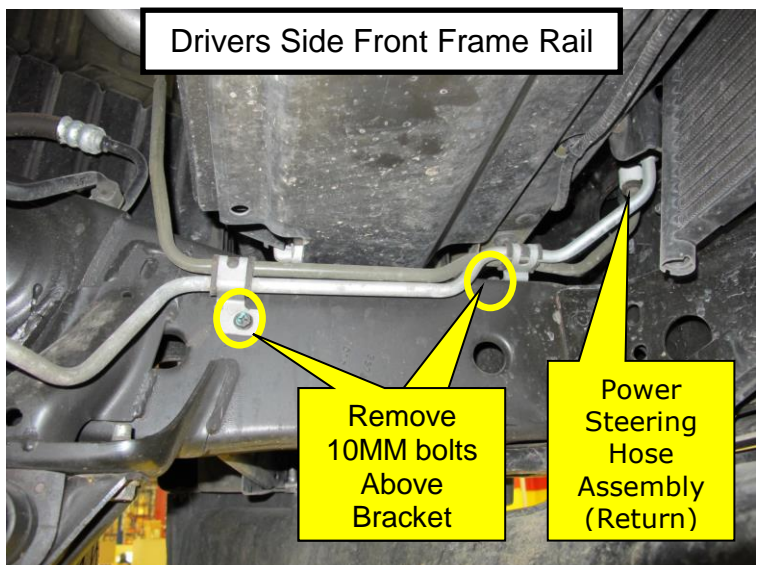


Figure 6

6. Remove Power Steering Hose Assembly (**Pressure & Return**) eye bolts (Figure 7).

- 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.

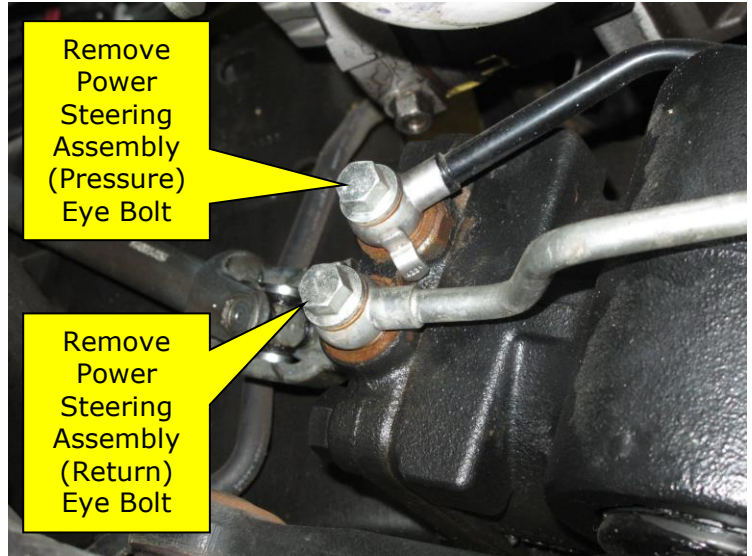


Figure 7

7. Install Power Steering Hose Assembly (Pressure & Return) connection eye bolts with four new copper sealing washers (Figure 8).

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

Caution: Do not reuse copper sealing washers.

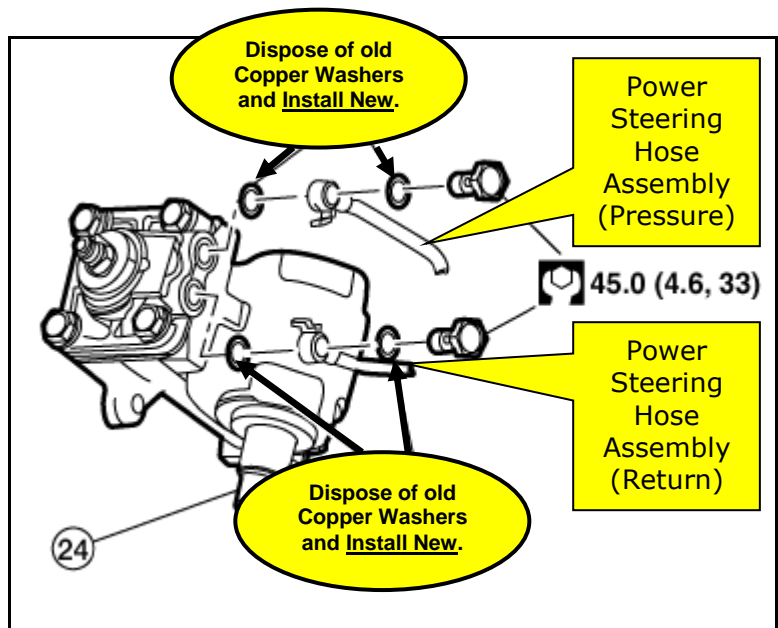


Figure 8

8. Reinstall Power Steering Hose Assembly (Pressure) bracket bolt (Figure 9).

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

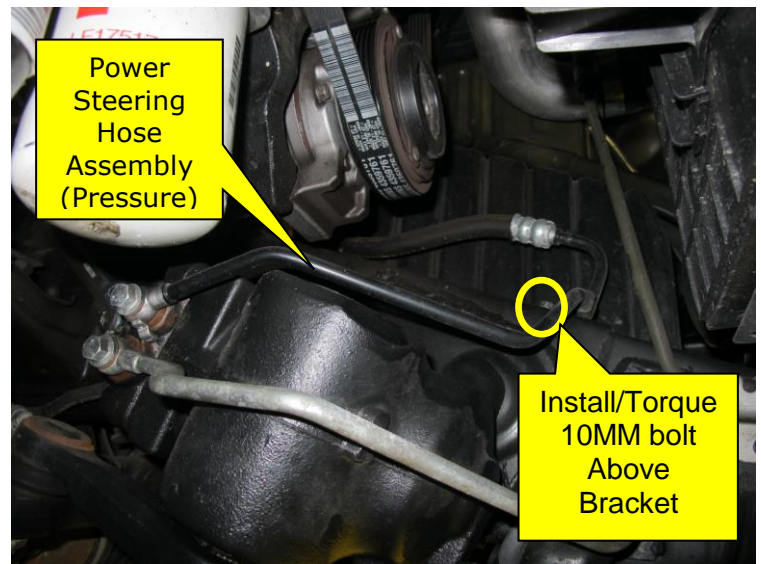


Figure 9

9. Reinstall Power Steering Hose Assembly (Return) bracket bolts (Figure 10).

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

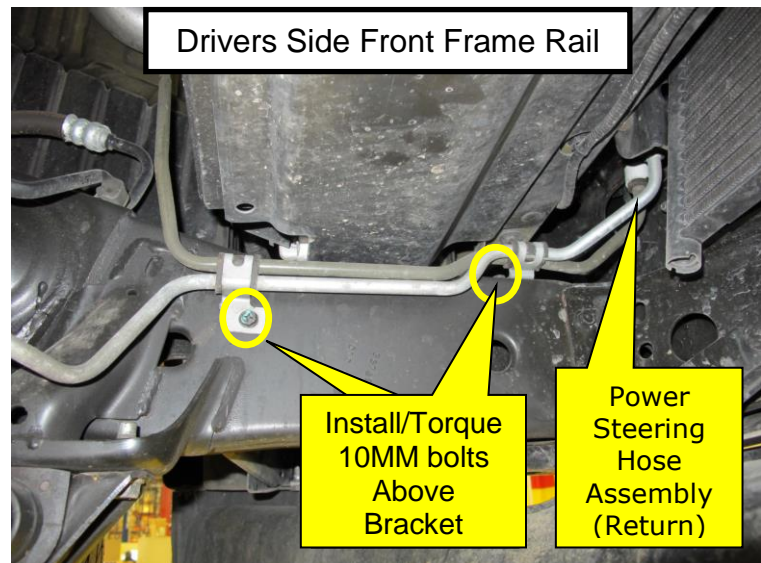


Figure 13

10. Proceed to step 11 for refilling and air bleeding the hydraulic system.

11. 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.

12. Install engine under cover.

- Install the (4) engine under cover bolts: torque to **13.5N.m (10 ft-lb)**

13. Install front under cover by model.

- Standard: Install the (6) front under cover bolts: torque to **13.5N.m (10 ft-lb)**
- Pro-4X: Install the (3) bolts and (4) hex head bolts: torque to **13.5N.m (10 ft-lb)**

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

15. 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: Front Prop Shaft Bolt Torque

PARTS INFORMATION:

Description	Quantity	Part #
Bolt-Fix Propel	4	37120-5X05A
Nut-Fix Propel	4	37171-AL60A

Inspection 4: Power Steering Pump and Bracket Torque

PARTS INFORMATION: (NOT REQUIRED)

Inspection 5: 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: PC566

Claim Type:	CM			
PNC:	PC566			
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. Front Prop Shaft Bolt Torque 4. Power Steering Pump and bracket Torque 5. Power Steering Box Leak	PC5660	0.7 Hr	No	No
INSPECTION 5 - Repair				
A/T Fluid Leak Inspection, Rear Prop Shaft Bolt Torque, Front 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	PC5661	1.7 Hr	Yes	No
COMBINATION CODES BELOW CAN BE USED IN ADDITION TO PC5660, AND PC5661 IF REPAIR IS REQUIRED				
Replace Rear Prop Shaft (4) bolts and (4) nuts; Torque to spec	PC5662	0.2 Hr	Yes	No
Replace Front Prop Shaft (4) bolts and (4) nuts; Torque to spec	PC5663	0.2 Hr	Yes	No