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QUALITY ACTION

CAMPAIGN BULLETIN

Automatic Transmission Dealer Inventory

Reference: PC562
Date: April 6, 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 (non-XD) (A61) Gasoline - 4WD	NA	5,209	April 6, 2017	NO

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

Nissan is conducting a dealer inventory quality action to perform several inspections on **5,209** specific 2017 Titan (non-XD) Gasoline 4-wheel drive vehicles identified in Service Comm.

Dealer will perform the following:

- A/T Fluid Leak Inspection
- Rear Prop Shaft Bolt Torque Inspection
- Front Prop Shaft Bolt Torque Inspection
- Steering Gear 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. PC562**
 - **New vehicles in dealer inventory can also be identified using DCS (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



PC562 – TITAN (A61G, 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 engine under cover (Figure 2).

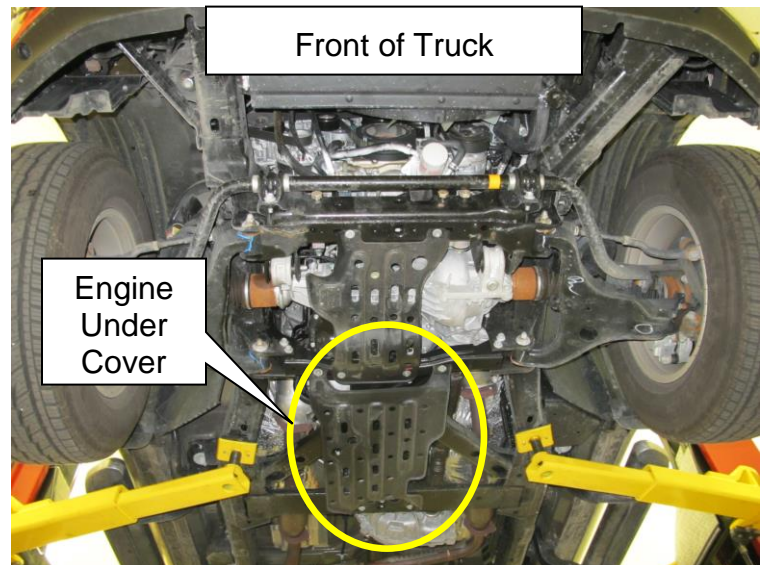


Figure 2

4. Remove the engine under cover (Figure 3).
- Remove the (5) engine under cover bolts.

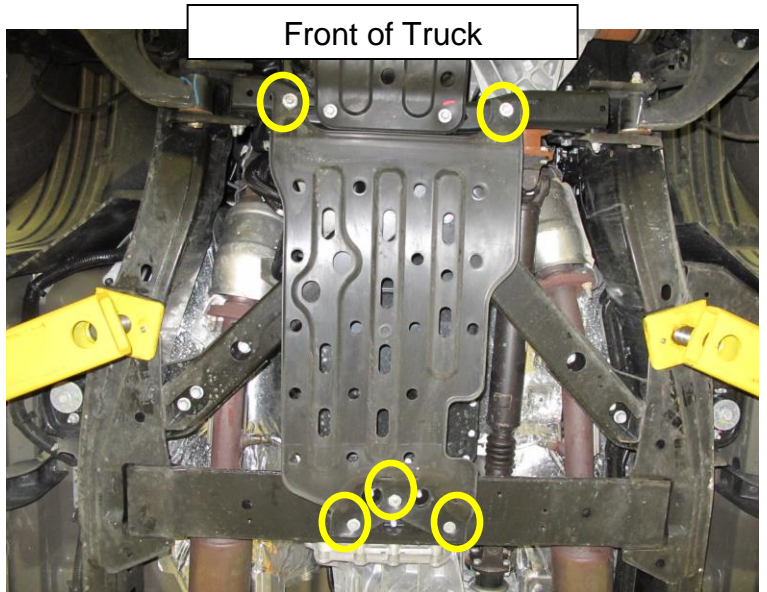


Figure 3

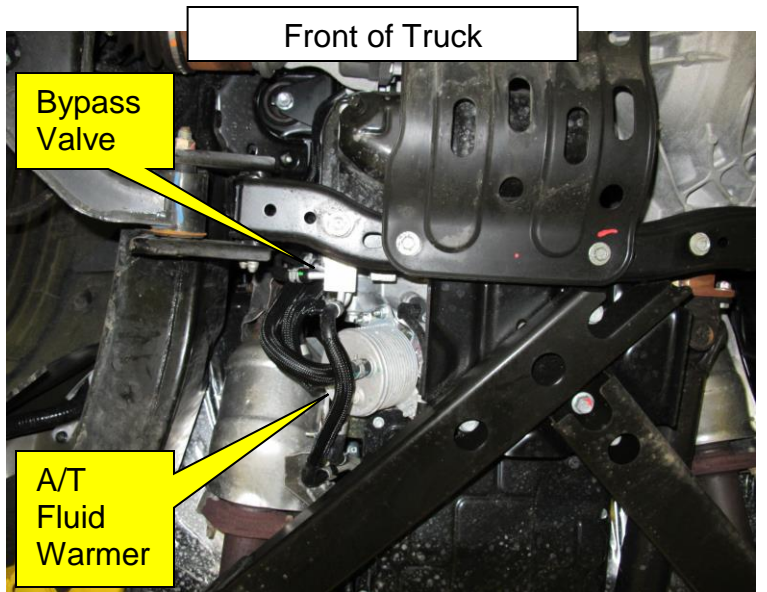


Figure 4

5. Locate the A/T fluid warmer and bypass valve on the passenger side next to the catalyst (Figure 4, 5).

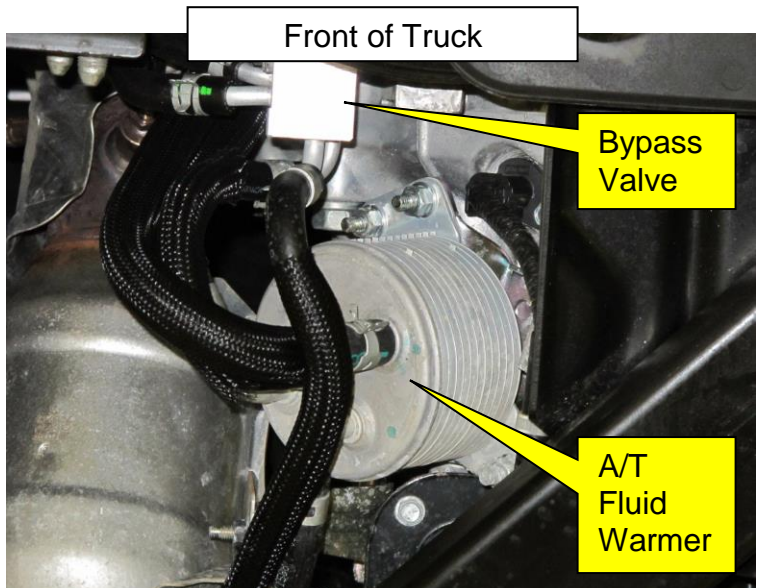



Figure 5

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 ; clamp located 5MM +or- 2MM (1/8th to 1/4 inch) from end of hose.

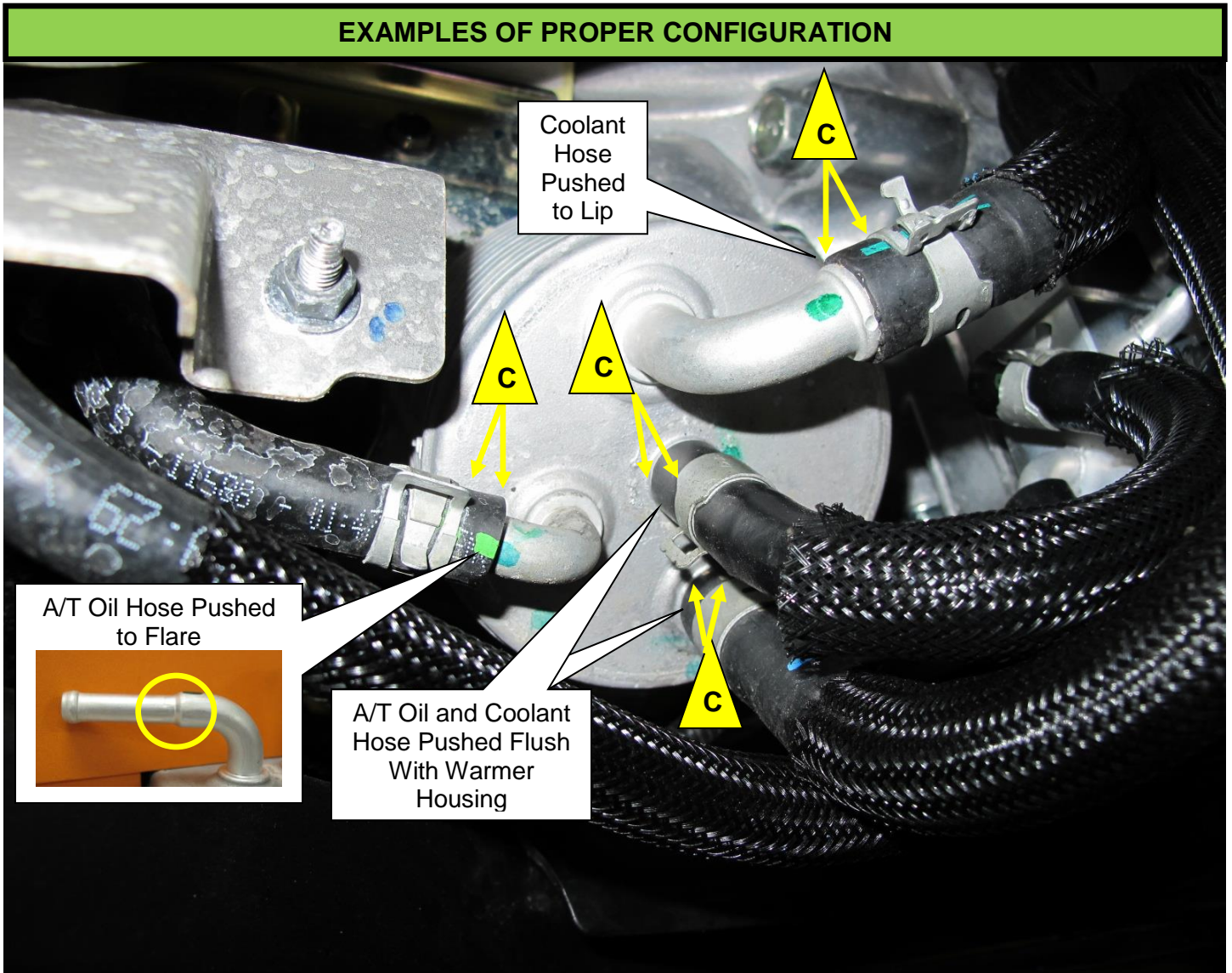


Figure 6

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

- Grenade pin not released (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).

EXAMPLES THAT REQUIRE HOSE OR CLAMP ADJUSTMENT

Grenade Pin Not Release



Figure 7

Clamp Not Seated Properly on Hose

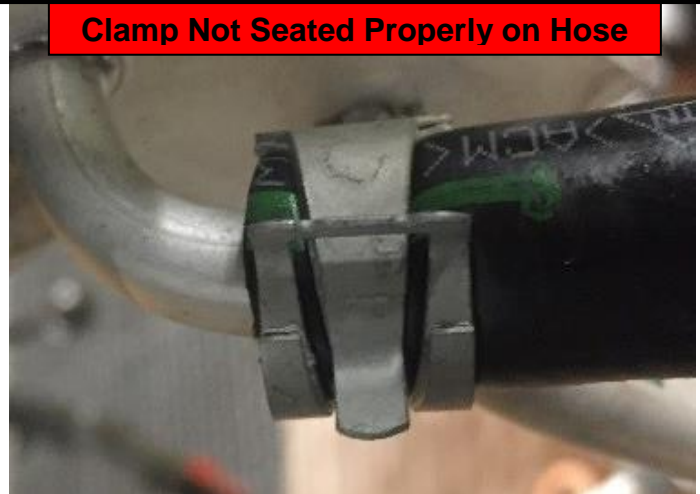


Figure 8

Clamp Not Seated Properly on Hose



Figure 9

Hose Not Seated Properly on Barb

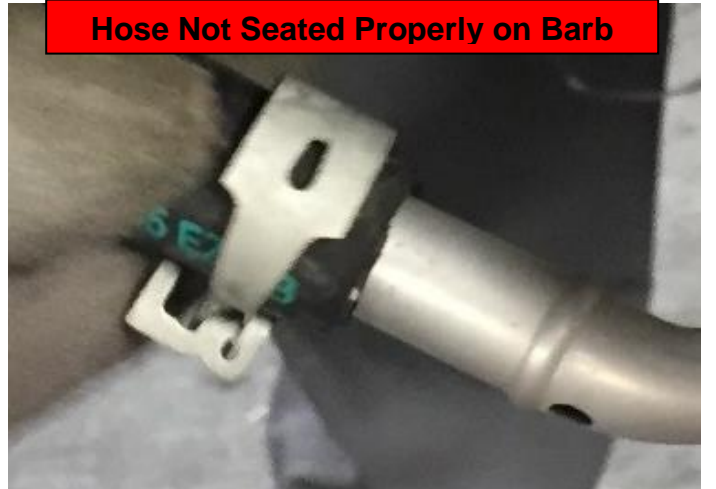


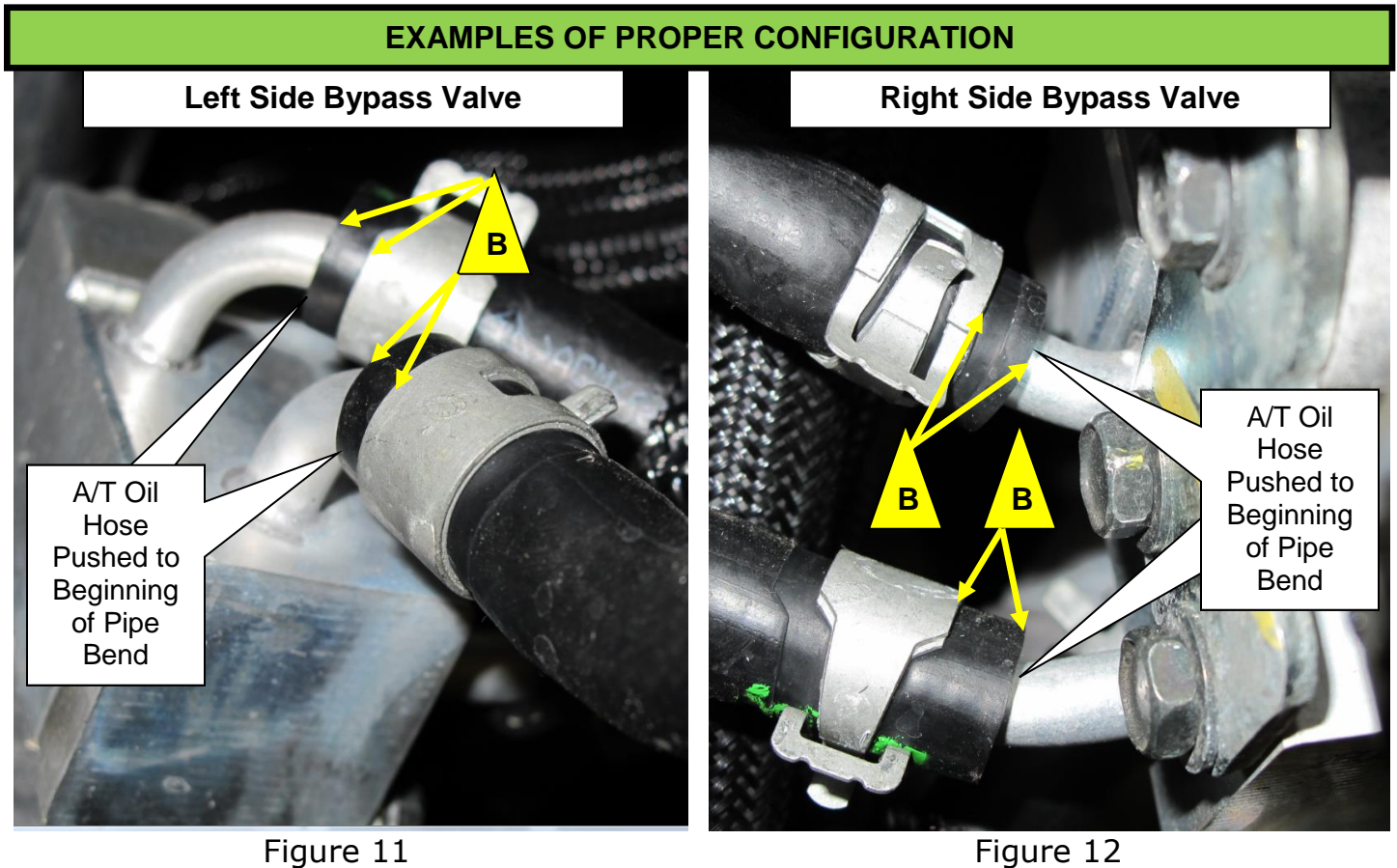
Figure 10

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

9. Inspect **four** bypass valve hoses for proper configuration (Figure 11, 12).

A. Bent tube hose placement: hose pushed to beginning of pipe bend.

B. Clamp placement **B**: clamp located 7.5MM +or- 2.5MM (3/16 to 3/8 inch) from the end of the hose.



10. EXAMPLES OF BYPASS VALVE HOSE CONNECTIONS THAT REQUIRE ADJUSTMENT.

- Blue pull tab clamp 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

Blue Pull Tab Clamp Not Released



Figure 13

Clamp Not Seated Properly on Hose

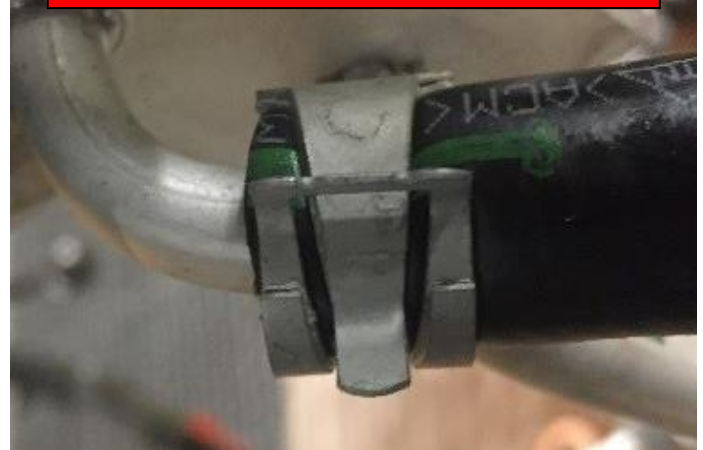


Figure 14

Clamp Not Seated Properly on Hose



Figure 15

Hose Not Seated Properly on Barb



Figure 16

11. **CORRECT ANY BYPASS VALVE HOSES THAT ARE NOT PROPERLY INSTALLED, REFERENCE STEP 9 (FIGURE 11, 12).**

12. Install engine undercover.

- Torque (5) bolts to **13.5N·m (10 ft-lb)**.

13. 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).

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

A. If **any** of the bolts 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 bolts 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.

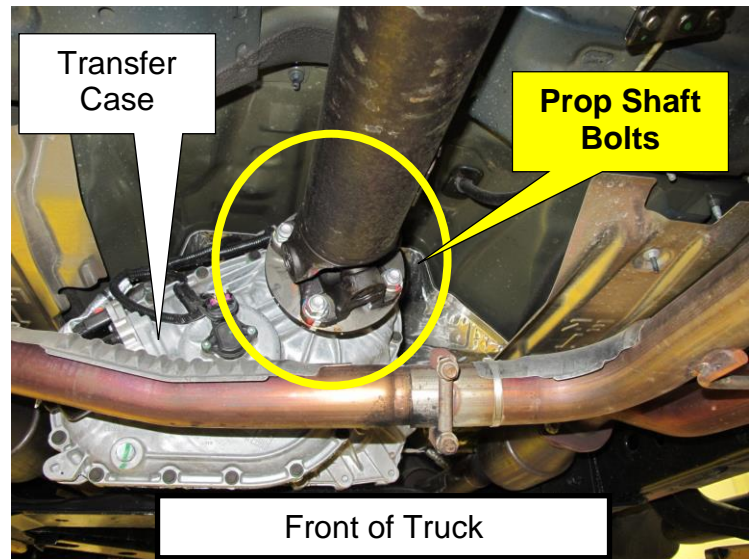


Figure 1



Figure 2

Inspection 3: Front Prop Shaft Bolt Torque

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

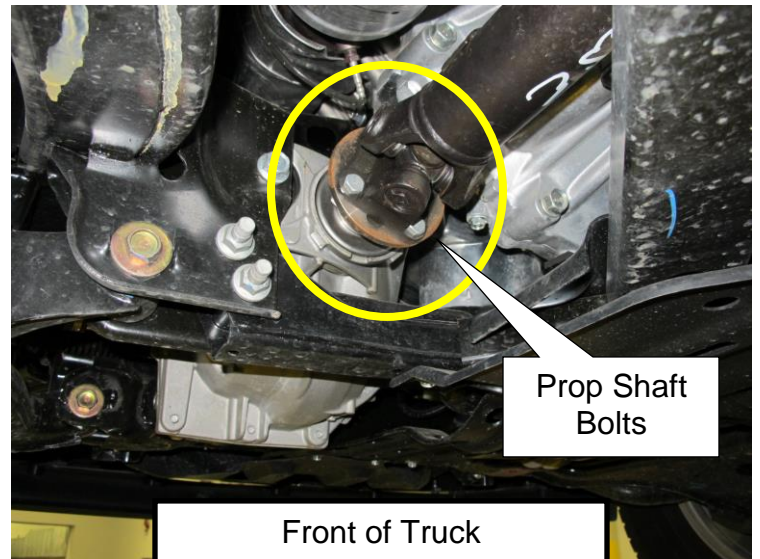


Figure 1

2. Place a 14MM 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 bolts 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:
59.8N·m (44 ft-lb)
 - B. If bolts 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: STEERING GEAR LEAK

1. Locate and remove the front under cover (Figure 1).
 - Remove the (7) retaining bolts.
 - Remove the (2) retaining bolts and (4) Hex head bolts (Pro-4X Only)

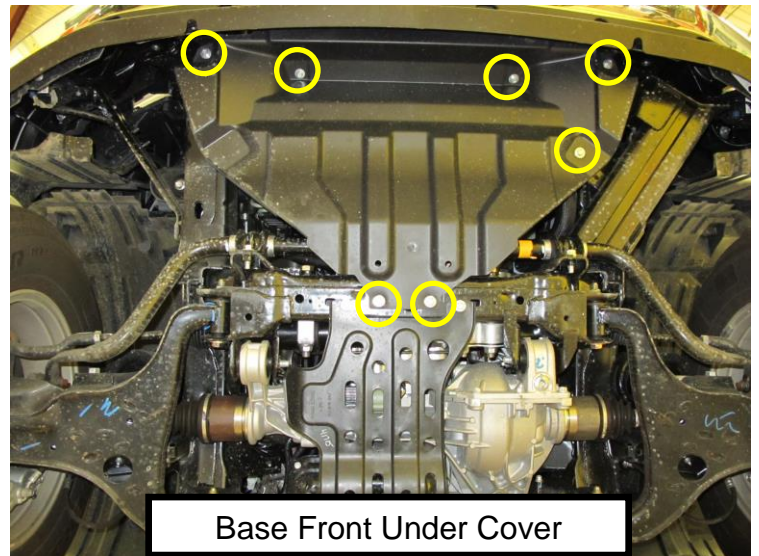
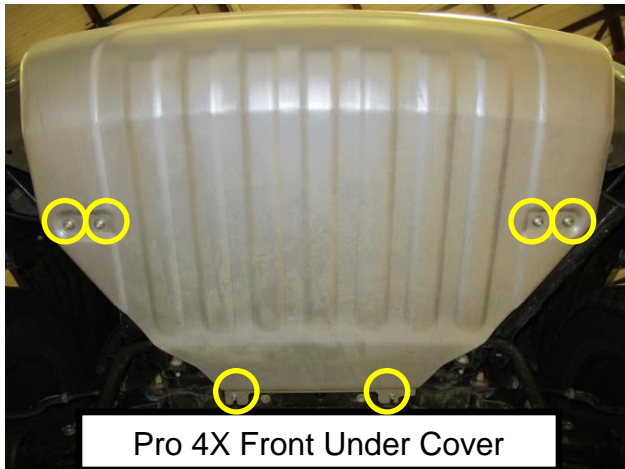


Figure 1

2. Locate the steering gear (rack & pinion) connections for the Power Steering Oil Return Pipe Assembly and Power Steering Oil Pressure Hose Assembly (Figure 2, 3).

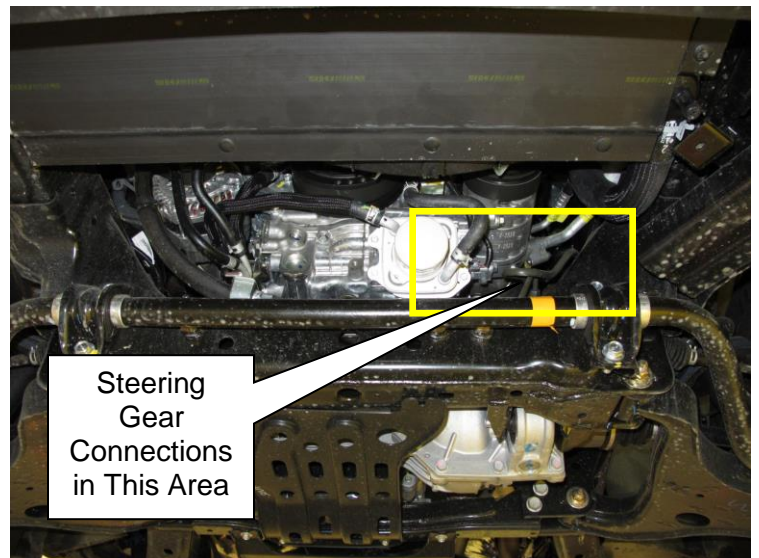


Figure 2

3. Inspect for **LEAKS** between the Steering Gear and Power Steering Oil Return Pipe and Power Steering Oil Pressure Hose connections (Figure 3).

- If **NO LEAK** found, inspection is complete, proceed to step 16.
- If **LEAK** found, proceed to step 4.

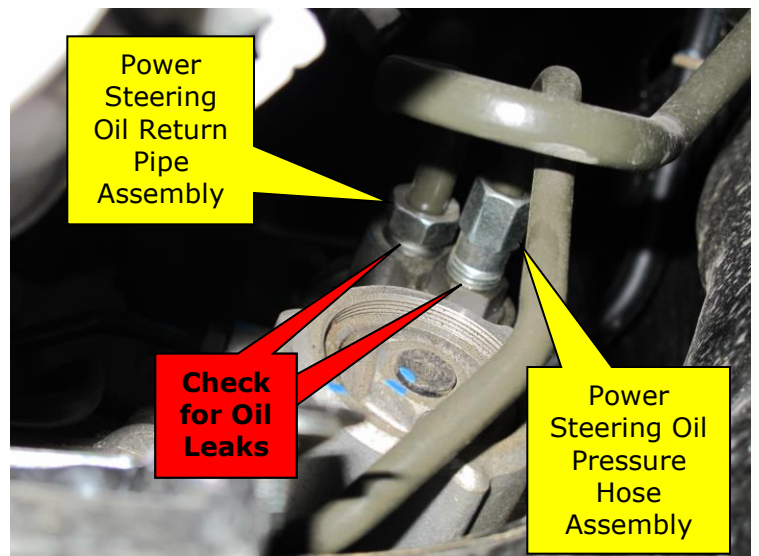


Figure 3

4. Clean area and re-torque both lines to ensure O-Ring is fully seated/sealed (Figure 4).

- Torque Power Steering Oil Return Pipe connection to:
19.7N·m (15 ft-lb)
- Torque Power Steering Oil Pressure Hose connection to:
33.4N·m (25 ft-lb)

5. Lower vehicle without removing from lift, start engine and moderately turn the wheels left to right contacting the steering stops at the end of each turn.

- Straighten front wheels and turn vehicle off.
- Raise vehicle on lift.

6. Inspect for **LEAKS** again between the Steering Gear and Power Steering Oil Return Pipe and Power Steering Oil Pressure Hose connections (Figure 5).

- If **NO LEAK** found, inspection is complete, proceed to step 16.
- If **LEAK** found, proceed to step 7.

7. If a leak is found, isolate the leak to the affected line and replace the O-ring (Figure 4).

- Power Steering Oil Pressure Hose connection repair; proceed to step 8
- Steering Gear and Power Steering Oil Return connection repair; proceed to step 11.

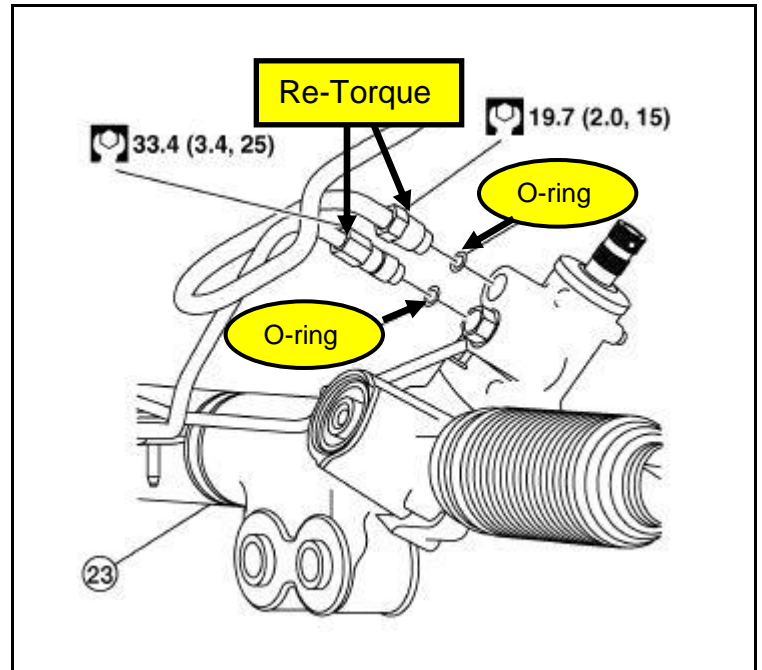


Figure 4

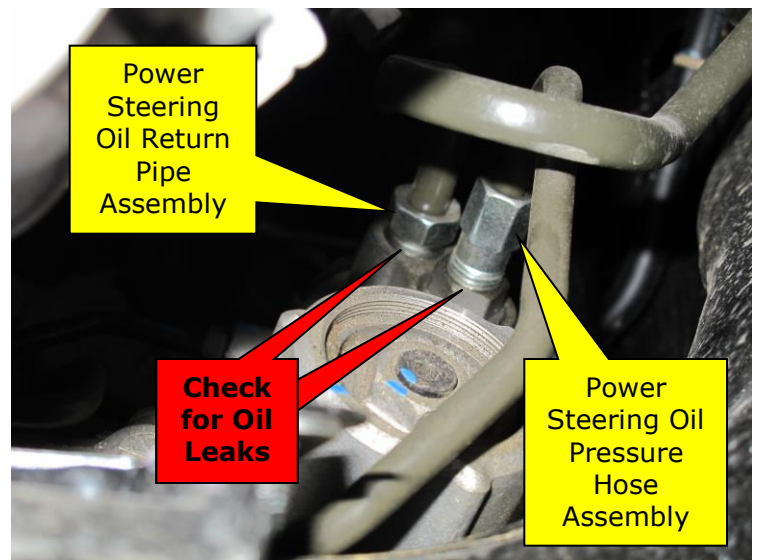


Figure 5

8. Power Steering Oil Pressure Hose connection/O-ring repair (Figure 6).

- Remove power steering hose bracket bolt.

9. Locate the Steering Gear and Power Steering Oil Pressure connection (Figure 7).

- Loosen connection using a suitable tool.

Caution: Do not loosen steering gear check valve insert; hold in place while loosening high pressure pipe fitting.

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

Note: Have drip container available to collect leakage.

Caution: Do not reuse drained power steering fluid.

- Remove old O-ring and replace with Nissan authorized part listed below.

P/N: 49328-03E00

- Torque Power Steering Oil Pressure Hose connection to:
33.4N·m (25 ft-lb)

- Reinstall power steering hose bracket bolt: Torque bolts to
9N·m (80 in-lb)

10. Proceed to step 15 for refilling and air bleeding the hydraulic system.

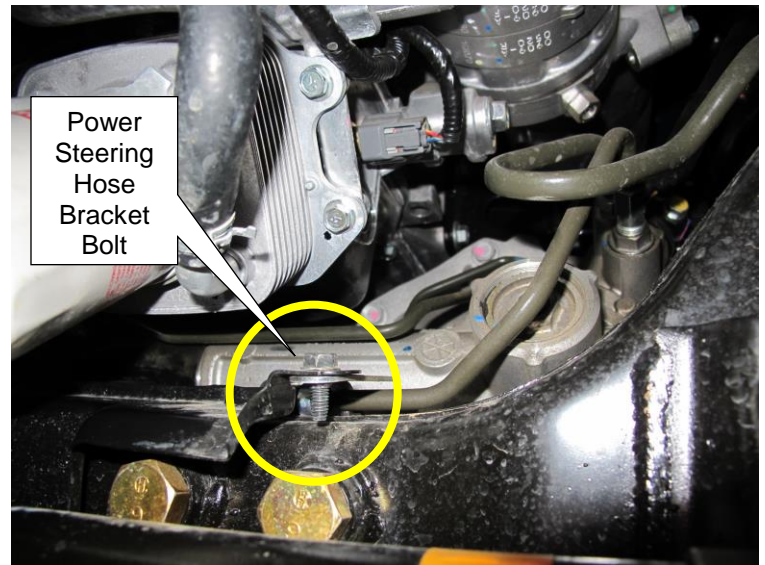


Figure 6

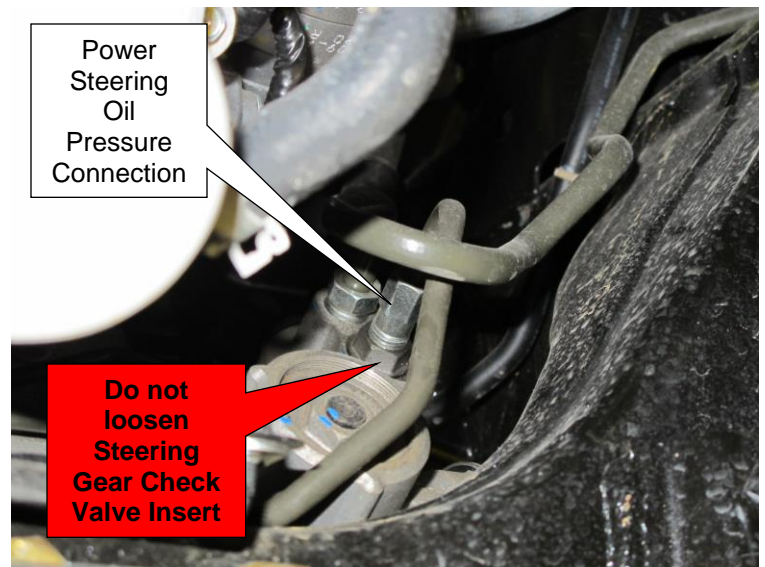


Figure 7

11. Steering Gear and Power Steering Oil Return connection/O-ring repair.

- Remove the power steering oil return line bracket bolt located inside the left fender well on the top of the frame (Figure 8, 9).

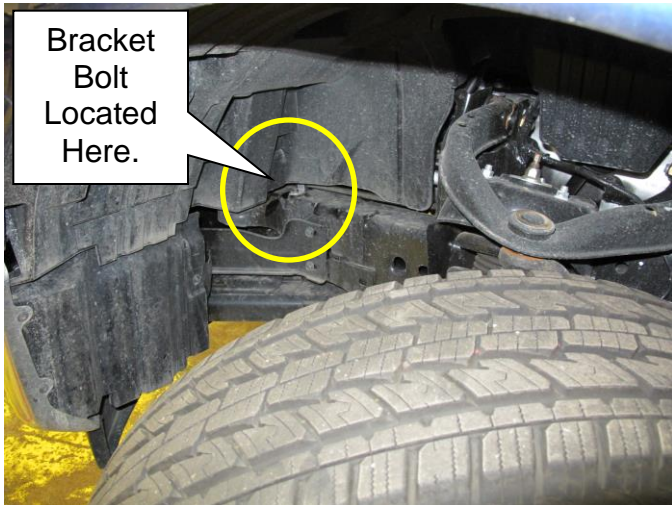


Figure 8

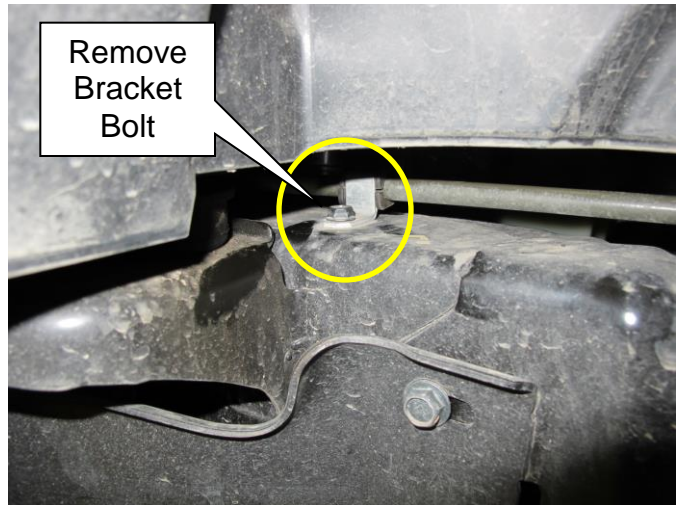


Figure 9

- Remove the power steering oil return line bracket bolt located inside the left front-end body assembly (Figure 10, 11).

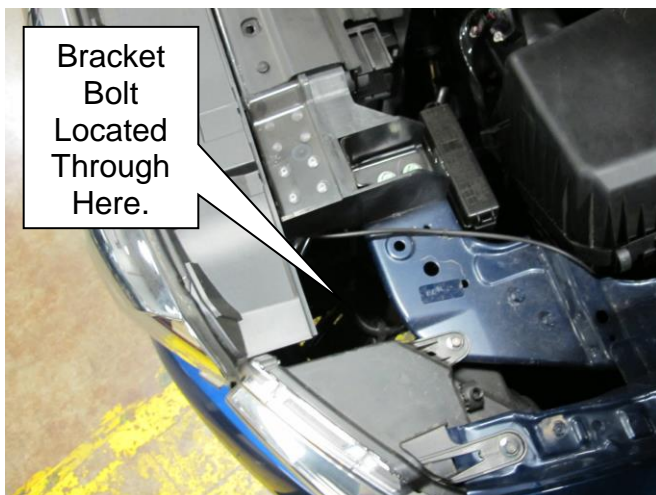


Figure 10

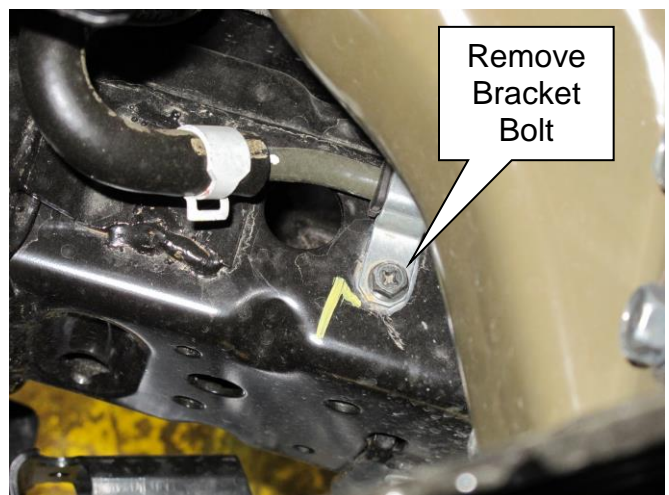


Figure 11

12. Locate the Steering Gear and Power Steering Power Oil Return pipe Connection (Figure 12).

- Loosen connection using a suitable tool.

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

Note: Have drip container available to collect leakage.

Caution: Do not reuse drained power steering fluid.

- Remove old O-ring and replace with Nissan authorized part listed below.

P/N 49328-03E00

- Torque Power Steering Oil Return Pipe connection to:
19.7N·m (15 ft-lb)

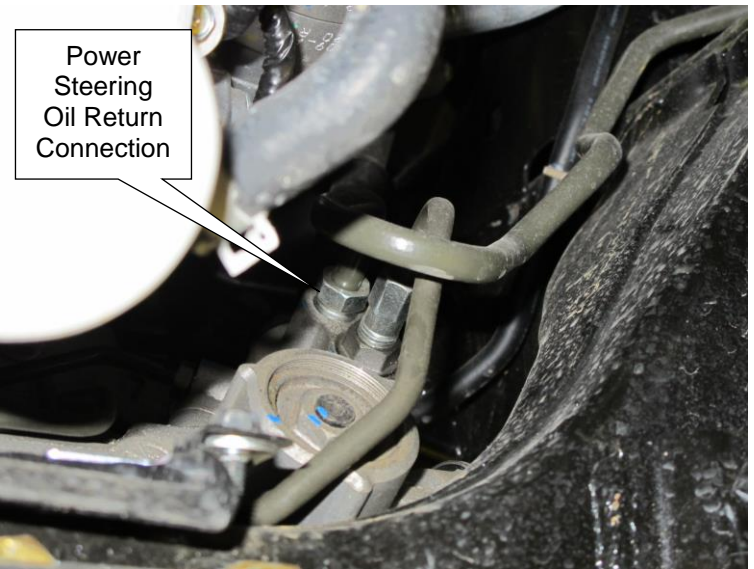


Figure 12



Figure 13

13. Install power steering oil return line bracket bolts (Figure 13,14).

- Torque Power Steering Oil Return Pipe bracket bolts to:
9N·m (80 in-lb)

14. Proceed to step 15 for refilling and air bleeding the hydraulic system.



Figure 14

15. 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.

16. Install front under cover by model.

- Standard: Install the (7) front under cover bolts: Torque to **5.5N·m (49 in-lb)**.
- Pro-4X: Install the (2) bolts and (4) hex head bolts:
 - Torque the (2) bolts to **8.83N.m (78 in-lb)**
 - Torque the (4) hex head bolts to **83.85N.m (62 ft-lb)**

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

18. 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	4	37120-5X00A
Nut	4	37171-5X00A

Inspection 3: Front Prop Shaft Bolt Torque

PARTS INFORMATION:

Description	Quantity	Part #
Bolt	4	37120-JD01A
Nut	4	37171-7S00A

Inspection 4: Steering Gear Leak

PARTS INFORMATION:

Description	Quantity	Part #
O-Ring (Same for both lines)	2 Max	49328-03E00
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: PC562

Claim Type:	CM			
PNC:	PC562			
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. AT Fluid Leak Inspection (Includes Hose & Clamp Adjustment) 2. Rear Prop Shaft Bolt Torque 3. Front Prop Shaft Bolt Torque 4. Steering Gear Leak (Includes Re-torque if Required)	PC5620	0.6 Hr	No	No
Inspect Automatic Transmission Fluid Leak, Rear Prop Shaft Bolt Torque, Front Prop Shaft Bolt Torque, & Steering Gear Leak. Replace O-Ring: Power Steering Oil Pressure Hose Connection	PC5621	1.5 Hr	Yes	No
Inspect Automatic Transmission Fluid Leak, Rear Prop Shaft Bolt Torque, Front Prop Shaft Bolt Torque, & Steering Gear Leak. Replace O-Ring: Power Steering Oil Return Pipe Connection	PC5622	1.5 Hr	Yes	No
Inspect Automatic Transmission Fluid Leak, Rear Prop Shaft Bolt Torque, Front Prop Shaft Bolt Torque, & Steering Gear Leak. Replace Both O-Rings : Power Steering Oil Pressure Hose & Return Pipe Connections	PC5623	1.6 Hr	Yes	No
COMBINATION CODES BELOW CAN BE USED IN ADDITION TO PC5620, PC5621, PC5622, AND PC5623 IF REPAIR IS REQUIRED				
Replace Rear Prop Shaft (4) bolts and (4) nuts; Torque to spec	PC5624	0.2 Hr	Yes	No
Replace Front Prop Shaft (4) bolts and (4) nuts; Torque to spec	PC5625	0.2 Hr	Yes	No