



TECHNICAL SERVICE BULLETIN

Classification: RA23-001A	Reference: NTB23-051A	Date: December 8, 2023
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VIBRATION AND/OR NOISE FROM THE REAR OF THE VEHICLE WHEN TURNING

This bulletin has been amended. See **AMENDMENT HISTORY** on the last page.
Please discard previous versions of this bulletin.

APPLIED VEHICLES: 2021-2023 Rogue (T33)
APPLIED VIN: VINs starting with 5N1 – Built on or before September 9, 2023
APPLIED DRIVETRAINS: AWD

IF YOU CONFIRM

A binding feeling, vibration, and/or noise coming from the rear end when turning at low speed,

AND

The issue is resolved by unplugging the Actuator Assembly (AWD Actuator) on the rear Final Drive Unit.

ACTION

1. Remove the Electro-hydraulic Coupling Assembly (AWD Coupler).
2. Clean the Coupling Oil Tank.
3. Inspect the Breather Tube and Bolt
4. Replace the Electro-hydraulic Coupling Assembly (AWD Coupler).

IMPORTANT: The purpose of **ACTION** (above) is to give you a quick idea of the work you will be performing. You **MUST** closely follow the entire **SERVICE PROCEDURE** as it contains information that is essential to successfully completing this repair.

Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. **NOTE:** If you believe that a described condition may apply to a particular vehicle, **DO NOT** assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

SERVICE PROCEDURE

Remove the AWD Coupler

1. Perform **Adjustment Before Removal** of the AWD Coupler.
 - Refer to the **ESM: TRANSMISSION & DRIVELINE > DRIVELINE > REAR FINAL DRIVE: R145 > REMOVAL AND INSTALLATION > ELECTRO-HYDRAULIC COUPLING > Adjustment > ADJUSTMENT BEFORE REMOVAL**
2. Remove the AWD Coupler.
 - Refer to the **ESM: TRANSMISSION & DRIVELINE > DRIVELINE > REAR FINAL DRIVE: R145 > REMOVAL AND INSTALLATION > ELECTRO-HYDRAULIC COUPLING > Removal and Installation > REMOVAL**

Clean the Coupling Oil Tank

3. Remove the fill plug from the side of the coupling oil tank cover.

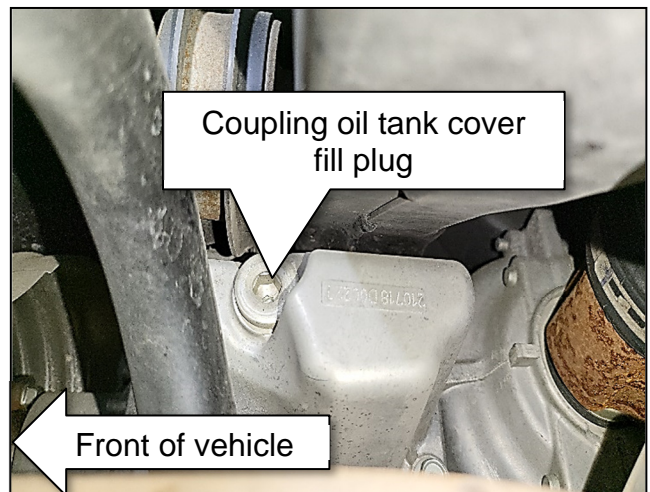


Figure 1

4. Spray brake cleaner into the coupling oil tank until clean solvent is running out of the AWD Coupler fluid hole.

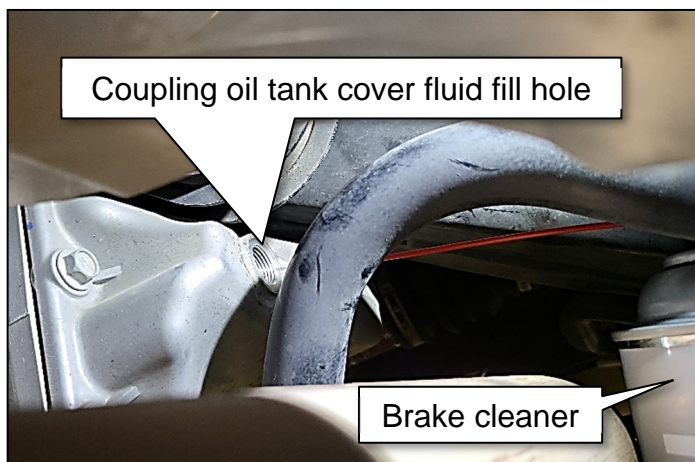


Figure 2

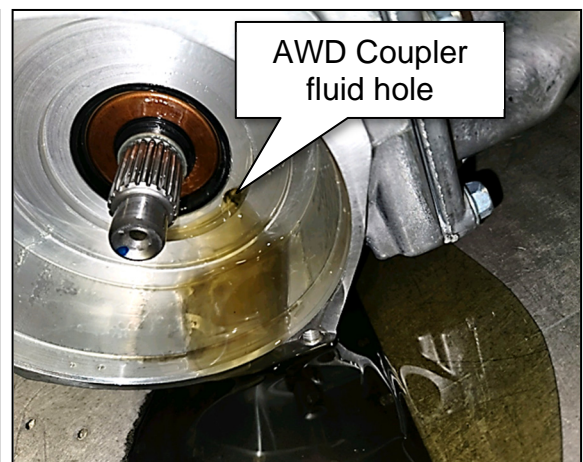


Figure 3

Breather Tube and Bolt Inspection

5. Remove the two (2) front mounting bolts of the Final Drive (differential) to access the top of the Final Drive (Figure 4).

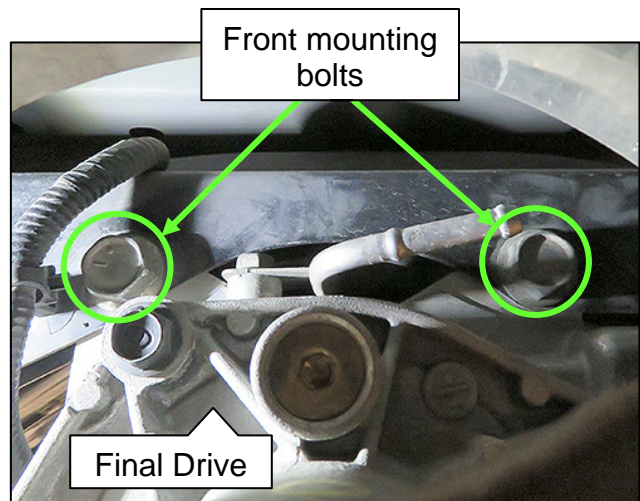


Figure 4

6. Confirm the following:
 - The Breather is seated correctly into the Final Drive (Figure 5).
 - The Breather's bolt is seated correctly and is not cross threaded (Figure 6).

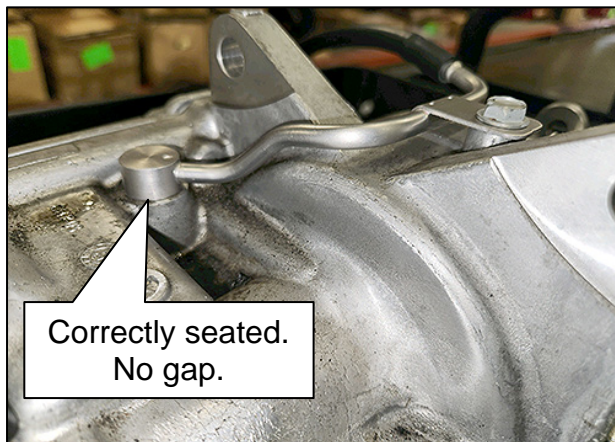


Figure 5

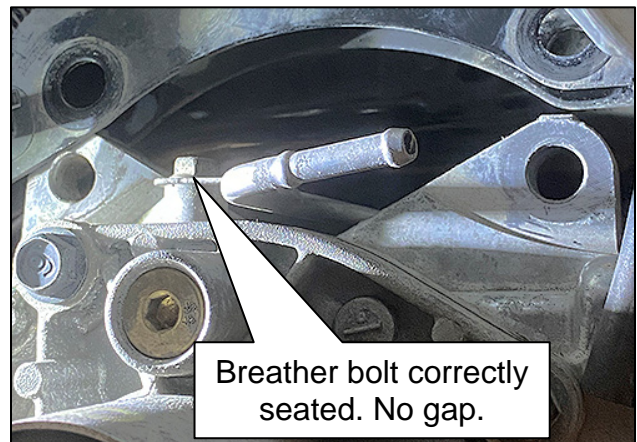


Figure 6

7. Are both the Breather's bolt and the Breather correctly seated?

YES:

- a. Remove the Breather's bolt and the Breather from the Final Drive.
- b. Replace the Breather's O-ring (lubricate with LSSC oil).
- c. Reinstall the Breather and the Breather's bolt.
 - Torque bolt to: 8 N•m (0.82 kg-m, **71 in-lbs**).
- d. Skip to step 11 on page 5.

NO:

- If either the Breather's bolt or the Breather are not correctly seated, proceed to step 8 on page 4.

8. Is the Breather's bolt correctly seated, but the Breather not correctly seated?

YES:

- a. Remove the Breather's bolt and the Breather from the Final Drive.
- b. Clean the surface around the Breather, and then confirm if the Breather will seat correctly.
- c. Replace the Breather's O-ring (lubricate with LSSC oil).
- d. Reinstall the Breather and Breather's bolt and confirm that it now seats correctly.
 - Torque bolt to: 8 N•m (0.82 kg-m, **71 in-lbs**).
 - If the Breather still will not seat correctly, replace the Breather tube assembly.

HINT: Do not replace the attached rubber hose.

- e. Proceed to step 11 on page 5.

NO:

- If the Breather's bolt, or the Breather and its bolt, are not correctly seated, proceed to step 9 on page 4.

9. Confirm if the Breather's bolt is loose.

- If only loose:
 - a. Remove the Breather's bolt and the Breather from the Final Drive.
 - b. Replace the Breather's O-ring (lubricate with LSSC oil).
 - c. Reinstall the Breather and Breather's bolt.

Torque bolt to: 8 N•m (0.82 kg-m, **71 in-lbs**).
- If the Breather's bolt is not loose, refer to the ESM for further diagnostic information, and then proceed to step 10.

10. Reinstall the front bolts of the Final Drive (differential).

- Torque bolts to: 8 N•m (0.82 kg-m, **71 in-lbs**).

Install the New AWD Coupler

11. Install the new AWD Coupler.

IMPORTANT: Verify that the brake cleaner is fully evaporated from step 4 before proceeding.

- Refer to the ESM: **TRANSMISSION & DRIVELINE > DRIVELINE > REAR FINAL DRIVE: R145 > REMOVAL AND INSTALLATION > ELECTRO-HYDRAULIC COUPLING > Removal and Installation > INSTALLATION**

IMPORTANT: Only use the fluid listed in the **PARTS INFORMATION**. The fluid has a tendency to have clutch additive separate during long storage, therefore it is critical to shake the fluid for 30-60 seconds before using.

12. Perform **Adjustment After Installation** of the AWD Coupler.

- Refer to the ESM: **TRANSMISSION & DRIVELINE > DRIVELINE > REAR FINAL DRIVE: R145 > REMOVAL AND INSTALLATION > ELECTRO-HYDRAULIC COUPLING > Adjustment > ADJUSTMENT AFTER INSTALLATION**

IMPORTANT: The **AIR BLEEDING AND INITIALIZE OIL DETERIORATION LEVEL** process will need to be performed several times until there is no noise from the Final Drive Unit.

PARTS INFORMATION

DESCRIPTION	PART NUMBER	QUANTITY
COUPLING ASSY-ELECTRICAL	38760-6RE3A	1
LIMITED SLIP COUPLER TRANSMISSION FLUID 12-301 (1) (2)	999MP-LSCTRF	As needed
O-ring	31084-6RE0A	1
Breather	38322-6RE1A	As needed
Bolt	38798-6RE0B	As needed

- (1) Order this item through the Nissan Maintenance Advantage program: Phone 877-NIS-NMA1 (877-647-6621). Website order via link on the dealer portal; www.NNAnet.com and click on the "Maintenance Advantage-Tire/Battery/Chemical" link.
- (2) This fluid has a tendency to have clutch additive separate during long storage, therefore it is critical to shake the fluid for 30-60 seconds before using.

CLAIMS INFORMATION

Submit a Primary Part (PP) type line claim using the following claims coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Replace AWD Electronic Coupling Assembly & Clean Oil Tank	(1)	LX13AA	ZE	32	2.1

- (1) Reference the electronic parts catalog and use the Electric Coupling (38760-*****) as the Primary Failed Part (**PFP**).

AMENDMENT HISTORY

PUBLISHED DATE	REFERENCE	DESCRIPTION
June 15, 2023	NTB23-051	Original bulletin published
December 8, 2023	NTB23-051A	Amended to update APPLIED VEHICLE information, and add inspection for Breather and bolt