

Classification:

FA21-007A

Reference:

ITB21-017A

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Date:

August 23, 2021

VOLUNTARY SAFETY RECALL CAMPAIGN 2020-2021 Q50 AND Q60; STEERING KNUCKLE INSPECTION

This bulletin has been amended. See AMENDMENT HISTORY on the last page.
Discard all previous versions of this bulletin.

CAMPAIGN ID #: R21A5
APPLIED VEHICLE: 2020-2021 Q50 (V37)
2020-2021 Q60 (CV37)

Check Service COMM or Dealer Business Systems (DBS)
National Service History to confirm campaign eligibility.

INTRODUCTION

Infiniti is conducting this voluntary safety recall campaign, on certain specific model year 2020-2021 Q50 and Q60 vehicles to inspect and, if necessary, replace the front steering knuckles. This service will be performed at no charge to the client for parts or labor.

IDENTIFICATION NUMBER

Infiniti has assigned identification number R21A5 to this campaign. This number must appear on all communication and documentation of any nature dealing with this campaign.

RETAILER RESPONSIBILITY

It is the retailer's responsibility to check Service COMM or Dealer Business Systems (DBS) National Service History for the campaign status on each vehicle falling within the range of this voluntary safety recall which for any reason enters the service department. This includes vehicles purchased from private parties or presented by transient (tourist) owners and vehicles in a retailer's inventory. **Federal law requires that new vehicles in retailer inventory which are the subject of a safety recall must be corrected prior to sale. Failure to do so can result in civil penalties by the National Highway Traffic Safety Administration.** While federal law applies only to new vehicles, Infiniti strongly encourages retailers to correct any used vehicles in their inventory before they are retailed.

Infiniti 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 Infiniti retailer to determine if this applies to your vehicle.

SERVICE PROCEDURE

⚠ WARNING

To avoid the risk of death or severe personal injury, do not reuse single use parts noted in this TSB. Reusing a single use part may induce risk that it, or the component that it secures, may become loose.

HINT: Most figures in this procedure show an AWD vehicle, 2WD is similar.

Remove the Steering Knuckle

1. Place the vehicle on a lift and raise to a suitable height.
2. Remove both front wheel and tire assemblies.

3. Remove the front wheel speed sensor bolt (10 mm) from the steering knuckle (Figure 1).
4. Separate the front wheel speed sensor harness grommets from the front wheel speed sensor harness bracket.

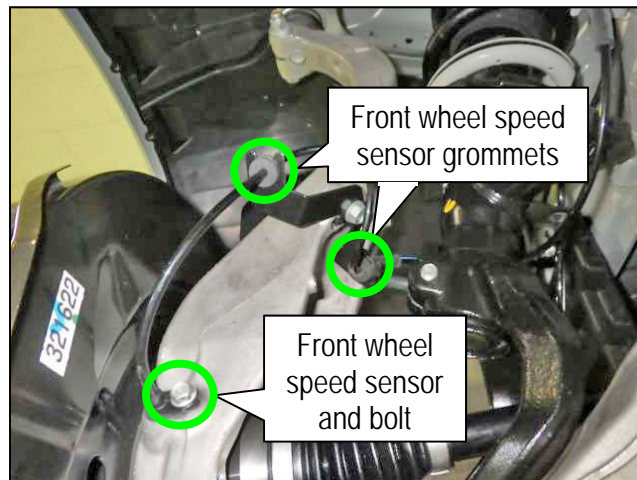


Figure 1

5. Remove the front wheel speed sensor harness bracket bolt (10 mm) from the steering knuckle (Figure 2).
6. Separate the front wheel speed sensor from the steering knuckle.

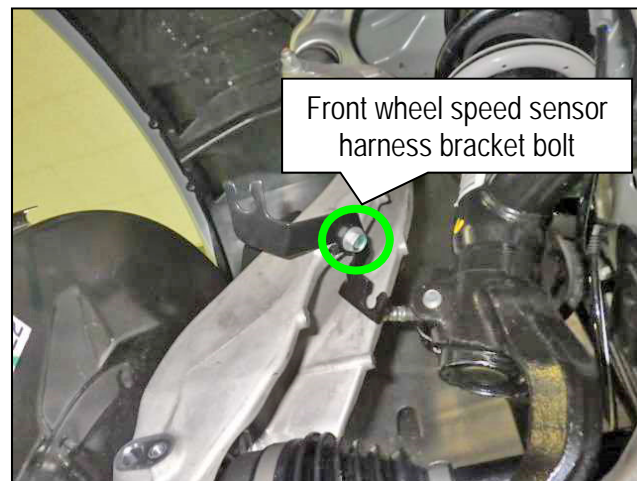


Figure 2

7. Remove the front brake caliper assembly as follows:

a. Remove the front brake hose bracket bolts (12 mm) from the steering knuckle.

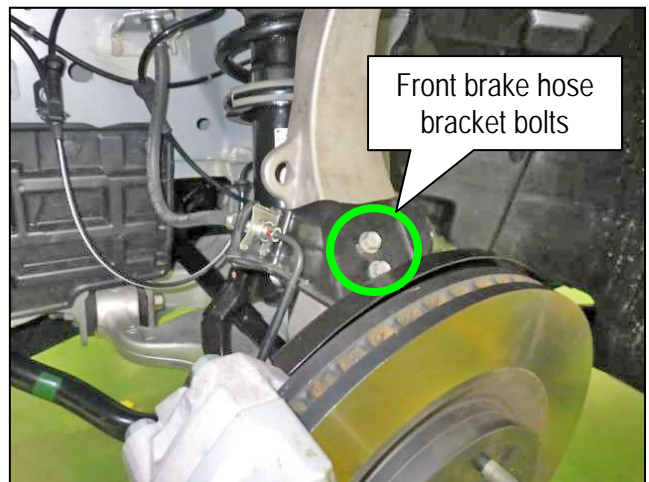


Figure 3

b. Place alignment marks on the disc brake rotor and on the wheel hub.

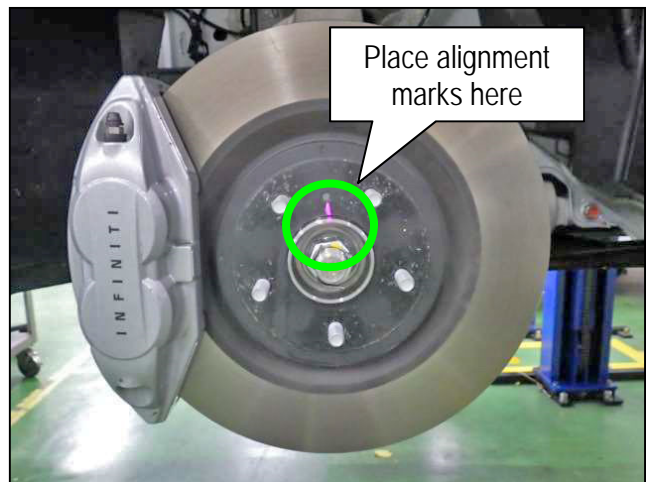


Figure 4

c. Remove the 2 front brake caliper assembly bolts (22 mm).

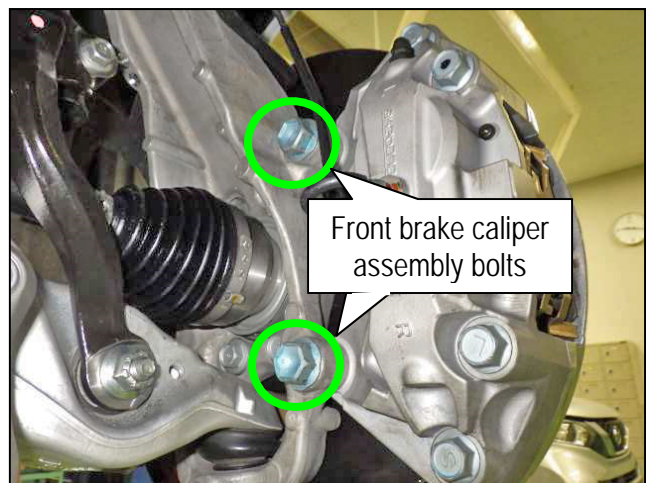


Figure 5

- d. Separate the front brake caliper assembly from the steering knuckle.

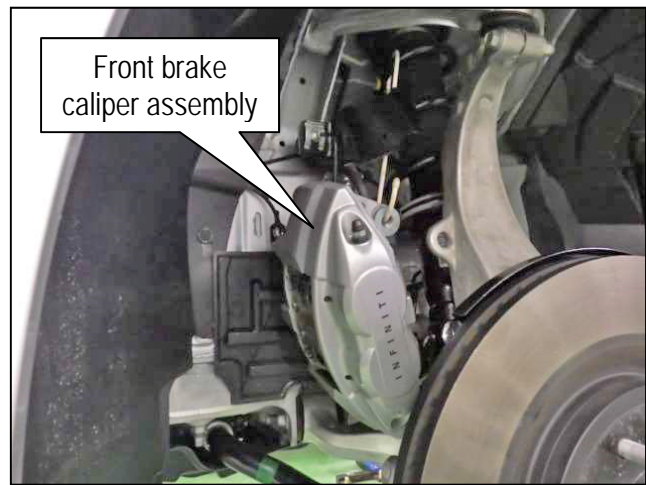


Figure 6

- e. Remove the front disc brake rotor.

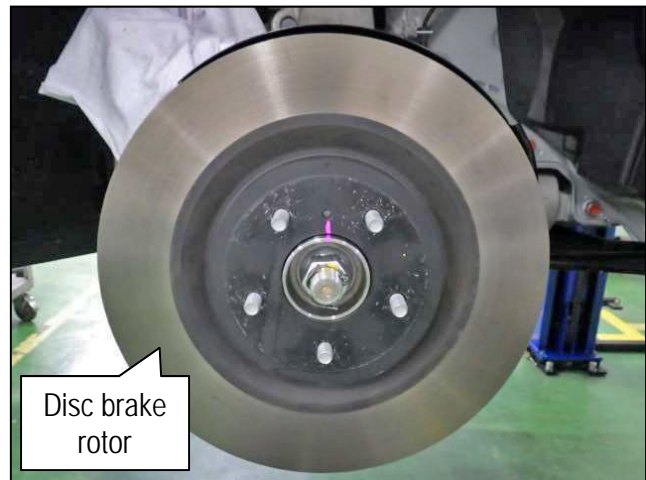


Figure 7

- 8. For 2WD models, skip to step 10 on page 6. For AWD models, continue to step 9 on page 5.

NOTICE

To avoid damage to the drive shaft threads, loosen the wheel hub lock nut until the front face of the nut is even with the face of the drive shaft.

9. For AWD models, remove the wheel hub lock nut (32 mm) from the drive shaft as follows:
 - a. Remove the wheel hub lock nut cotter pin.
 - Do not reuse the cotter pin.
 - b. Loosen, but do not remove the wheel hub lock nut.

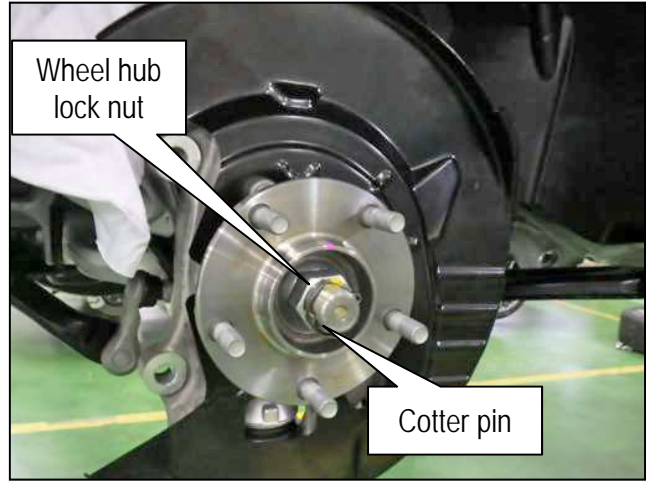


Figure 8

- c. Using a piece of wood and suitable tool, tap on the wheel hub lock nut to disengage the drive shaft from the wheel hub.
 - d. Once the drive shaft is disengaged from the wheel hub, remove the wheel hub lock nut.

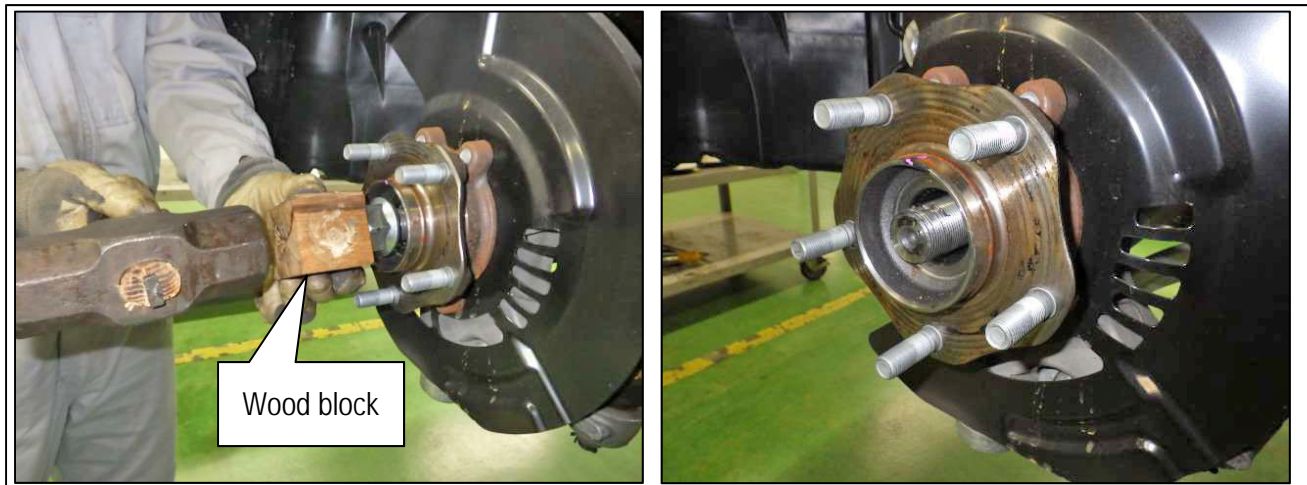


Figure 9

10. For all models, remove the steering knuckle as follows:
 - a. Remove the cotter pin from the transverse link and steering knuckle.
 - Do not reuse the cotter pin.
 - b. Remove the steering knuckle nut (22 mm) and the transverse link.



Figure 10

- c. Remove the steering outer socket cotter pin.
 - Do not reuse the cotter pin.
 - d. Remove the steering outer socket nut (18 mm).



Figure 11

- e. Separate the steering outer socket from the steering knuckle using a ball joint remover.

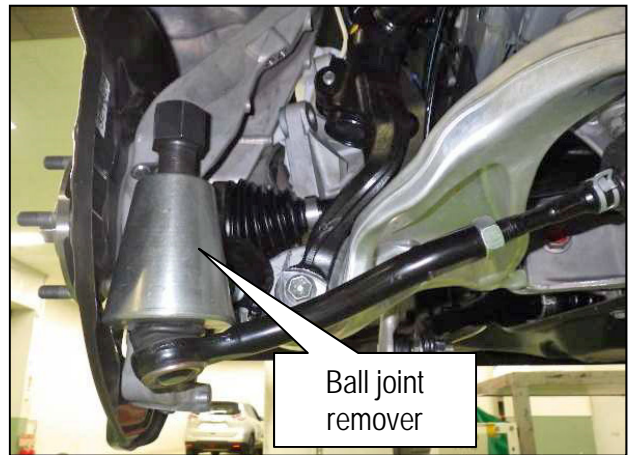


Figure 12

- f. Remove the upper link and steering knuckle nut (14 mm).
- Do not reuse the nut.

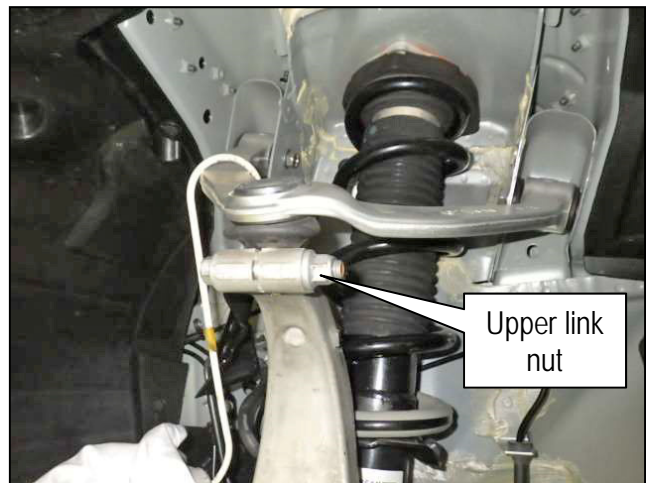


Figure 13

- g. Remove the bolt from the upper link and steering knuckle, and separate the steering knuckle from the upper link.



Figure 14

- h. Separate the drive shaft from the wheel hub (AWD models).

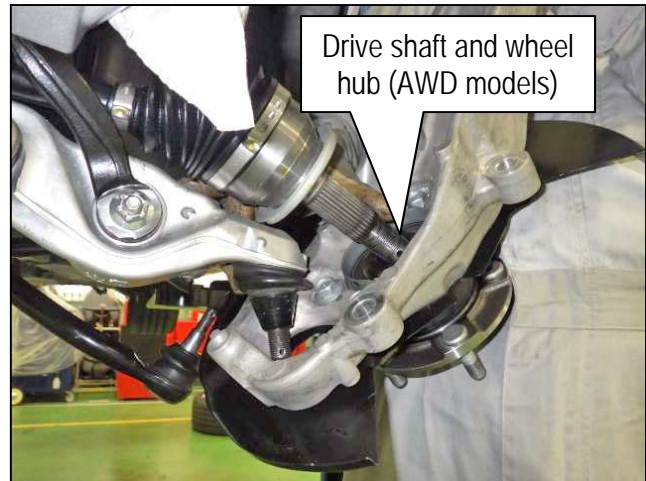


Figure 15

- i. Remove the steering knuckle from the vehicle.



Figure 16

- 11. Repeat steps 3 - 10 on pages 2 - 8 for the opposite side of the vehicle, and then proceed to step 12 on page 9.

Disassemble the Steering Knuckle

12. Place the steering knuckle securely in a vise (Figure 17 [AWD shown, 2WD is similar]).
13. Remove the 4 wheel hub bolts (17 mm) from the steering knuckle.

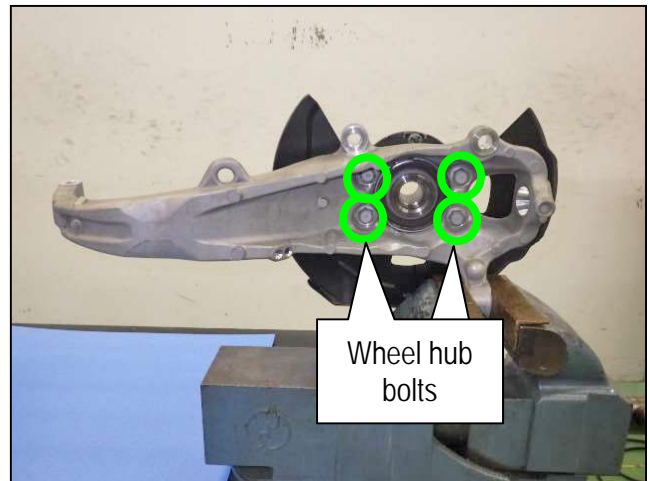


Figure 17

14. Separate the wheel hub and splash guard from the steering knuckle.

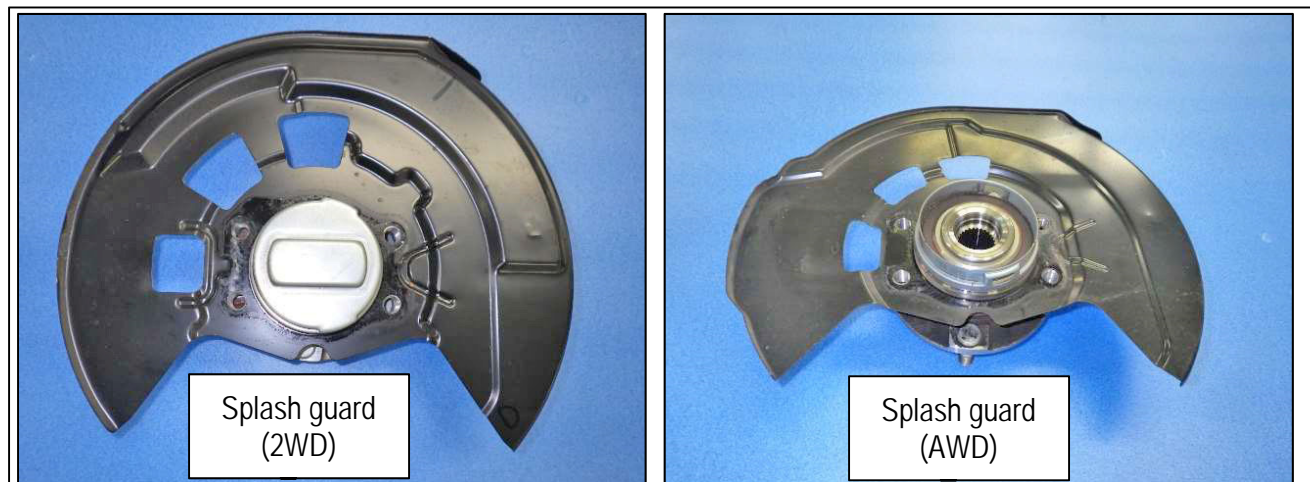


Figure 18

Confirm the Casting Stamp Date

The following Service Procedure uses an online form that must be filled out while performing the procedure.

15. Locate the casting stamp dates on each suspension knuckle, where indicated in Figure 19.

NOTE: Orient the suspension knuckle as shown in Figure 19 (RH side is shown, LH side will be reversed).

- Write down the casting stamp date on the repair order as follows:
 - a. Write down the upper digit of the casting stamp nearest the tie rod end mounting point. This will be the first digit of the casting stamp date. This is the number "9" of the example below in Figure 19.
 - The lower digit of this casting stamp will not be used.
 - b. Write down a forward slash ("/").
 - c. Write down the upper digit followed by the lower digit of the casting stamp furthest from the tie rod end mounting point. This is the number "28" followed by the letter "C" of the example below in Figure 19.

EXAMPLE:

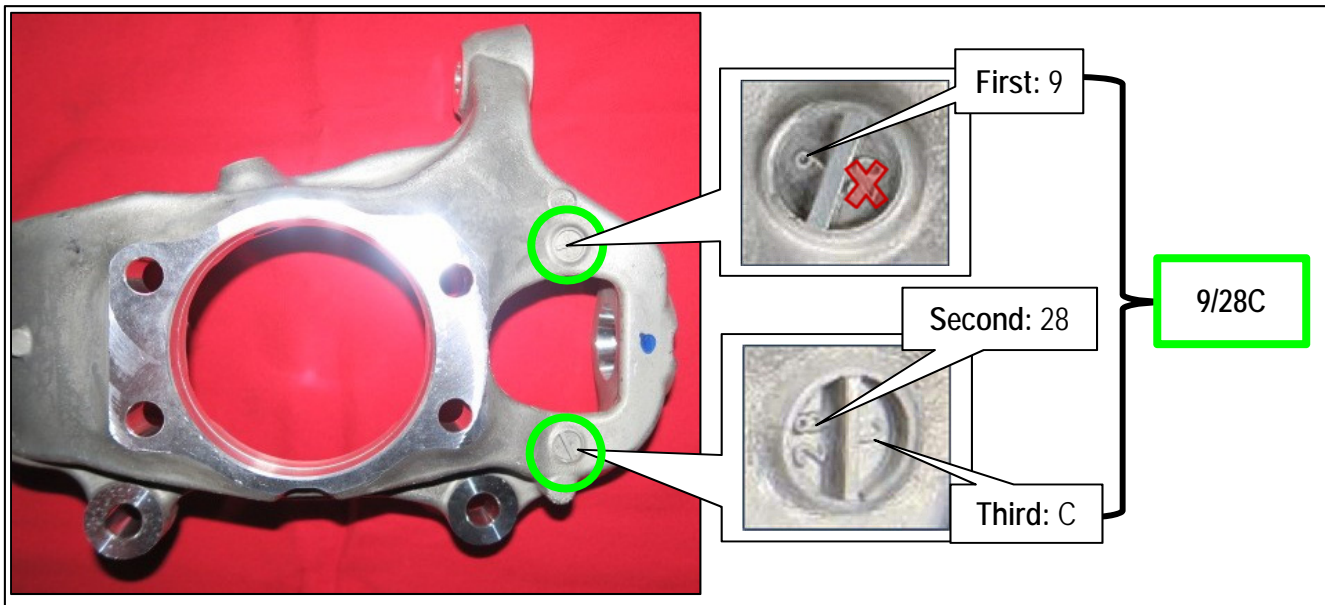


Figure 19

16. Open the ASIST form found at **ASIST > Tech Support Info > Bulletin Support Items > R21A5 Knuckle Inspection** (see Figure 20 and Figure 21).

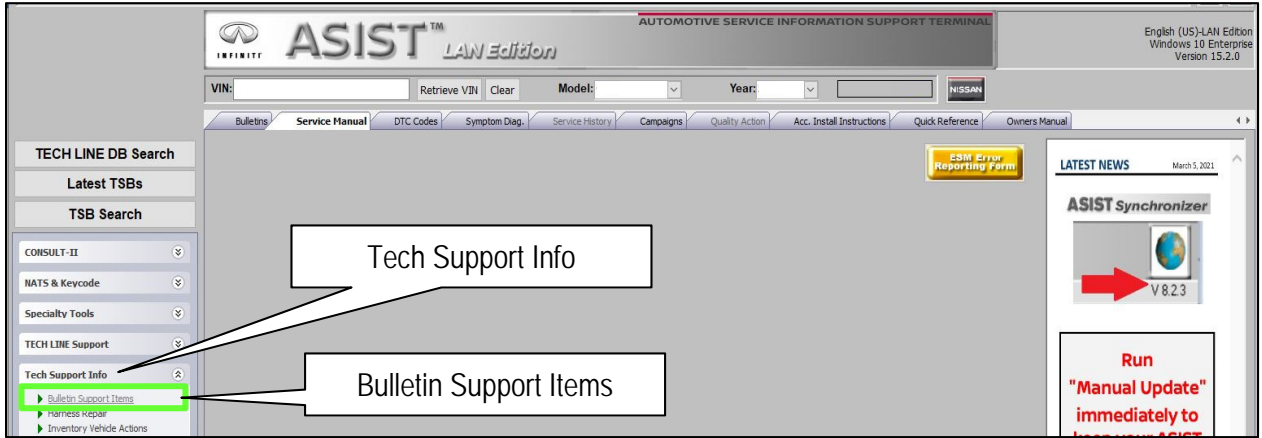


Figure 20

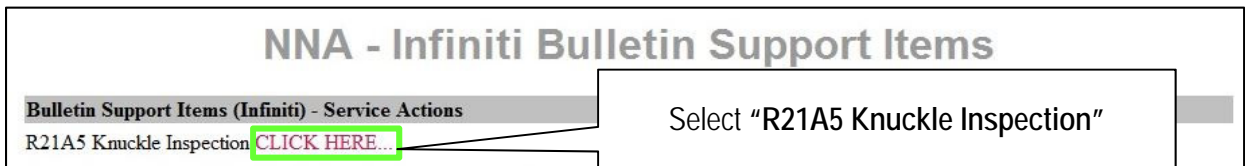


Figure 21

17. Enter the vehicle VIN and both casting stamp dates into the ASIST form, and then select **Submit** (Figure 22).

NOTE: The forward slash ("/") is required when entering the casting stamp date, as shown in Figure 22 and Figure 23

- If the ASIST inspection result is **OK** (Figure 22), print the Knuckle Inspection form and attach it to the work order. Proceed to step 19 on page 13 to **reassemble** the original suspension knuckles.
- If the ASIST inspection result is **NG** (Figure 23), print the Knuckle Inspection form and attach it to the work order. Place a parts order in DBS for the part number shown at the bottom of the Knuckle Inspection form, and proceed to step 18 on page 13 to **replace** the affected suspension knuckle(s).

The screenshot shows the 'R21A5 Knuckle Inspection' form. At the top, it displays the date and time: '6/1/2021 12:32:11 PM (Mountain Standard Time)'. Below this, there is a 'Model' dropdown menu with 'Q50' and 'Q60' options. The 'Input 17 digit VIN' field contains 'XXXXXXXXXXXXXXXXXXXX'. Under 'Input Front Steering Knuckle Casting code', there are two input fields: 'LH 11/3c' and 'RH 10/8c'. At the bottom, there are 'Submit' and 'Print' buttons. A green arrow points to the 'Submit' button. A green box highlights the message at the bottom: 'Inspection is OK. Reassemble the vehicle and submit a Warranty Claim'.

Figure 22

The screenshot shows the 'R21A5 Knuckle Inspection' form. At the top, it displays the date and time: '6/1/2021 12:33:10 PM (Mountain Standard Time)'. Below this, there is a 'Model' dropdown menu with 'Q50' and 'Q60' options. The 'Input 17 digit VIN' field contains 'XXXXXXXXXXXXXXXXXXXX'. Under 'Input Front Steering Knuckle Casting code', there are two input fields: 'LH 10/3c' and 'RH 10/8c'. At the bottom, there are 'Submit' and 'Print' buttons. A red box highlights the message at the bottom: 'NG- Replace the FRONT xx knuckle using part number xxxxx-4GA0A . Print this page and attach to work order.'

Figure 23

Replace the Steering Knuckle

18. Clamp the new steering knuckle securely in a vise.



Figure 24

Reassemble the Steering Knuckle

19. Clean the wheel hub and splash guard.
20. Install the wheel hub and the splash guard to the steering knuckle.

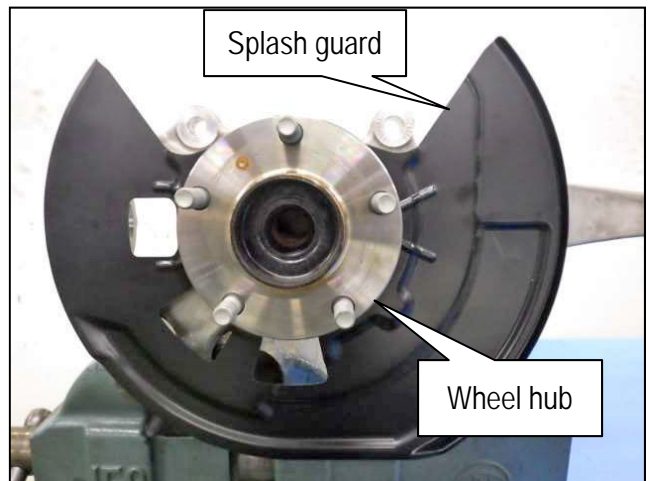


Figure 25

21. Hand tighten the 4 bolts (17 mm) that attach the wheel hub and splash guard to the steering knuckle.
 - Tighten the wheel hub bolts to 88.3 N·m (9.0 kg-m, 65 ft-lbs).

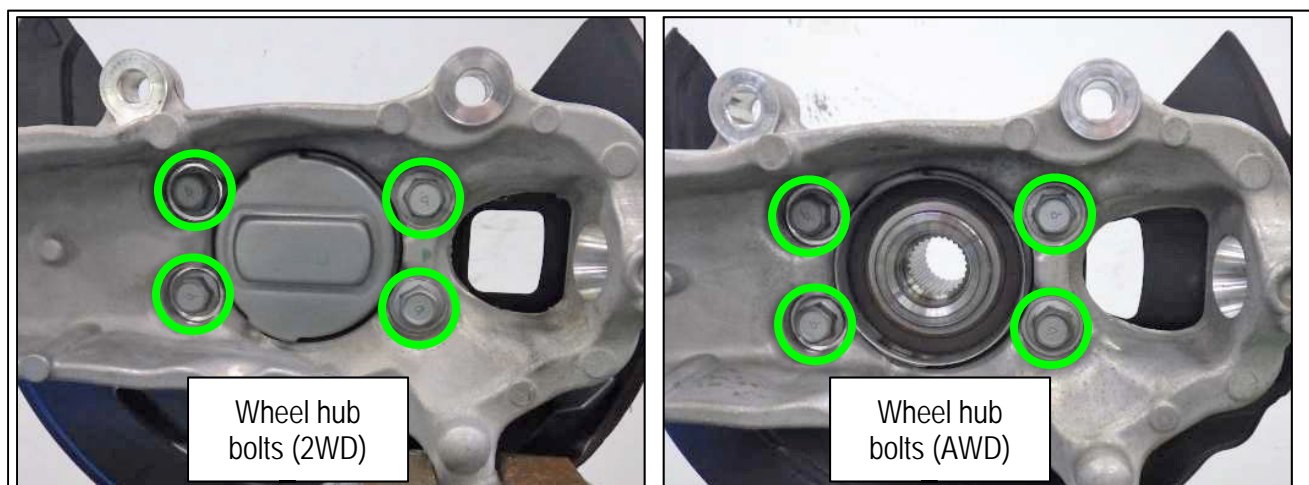


Figure 26

22. Install the steering knuckle to the vehicle as follows:
- a. Lift the steering knuckle up against the upper link and install the upper link to steering knuckle bolt.
 - b. Install a **new** nut (14 mm) to the mounting bolt of the upper link and steering knuckle.
 - c. Tighten the steering knuckle nut (14 mm) to 55.0 N•m (5.6 kg-m, **41 ft-lbs**).

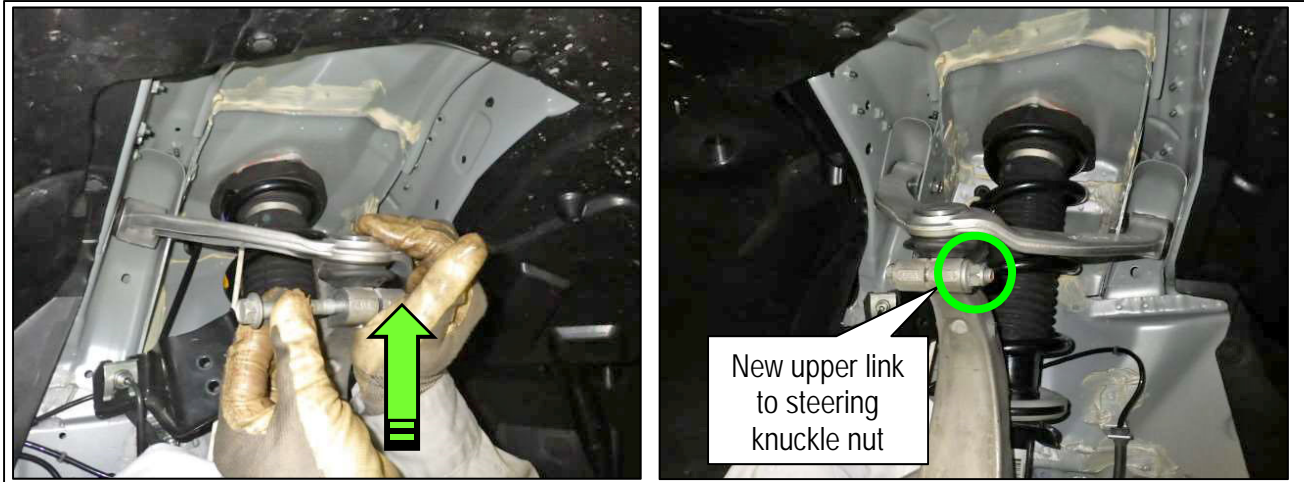


Figure 27

- d. Insert the drive shaft into the wheel hub (AWD models).

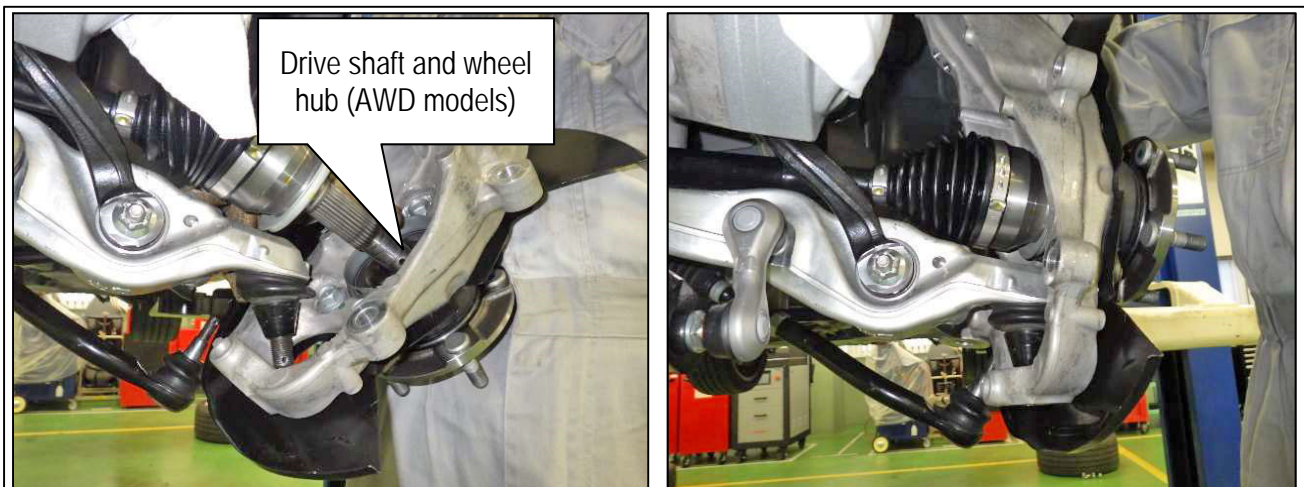


Figure 28

- e. Install the steering outer socket using a **new** nut (18 mm).
- f. Tighten the steering outer socket nut (18 mm) to 45.0 N•m (4.6 kg-m, **33 ft-lbs**).
- g. Install a **new** cotter pin to the steering outer socket nut.



Figure 29

- h. Install the transverse link nut (22 mm).
- i. Tighten the transverse link nut (22 mm) to 136.0 N•m (14.0 kg-m, **100 ft-lbs**).
- j. Install a **new** cotter pin to the transverse link nut.

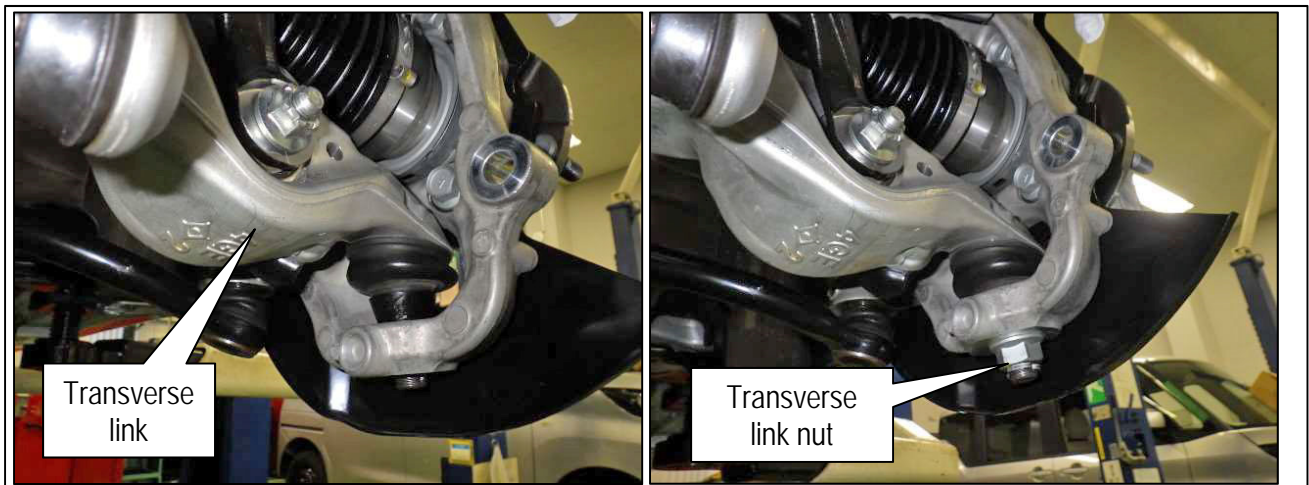


Figure 30

23. Install the front brake caliper assembly as follows:
- Install the front disc brake rotor using the alignment marks.
 - Use a wheel nut to secure the front disc brake rotor.

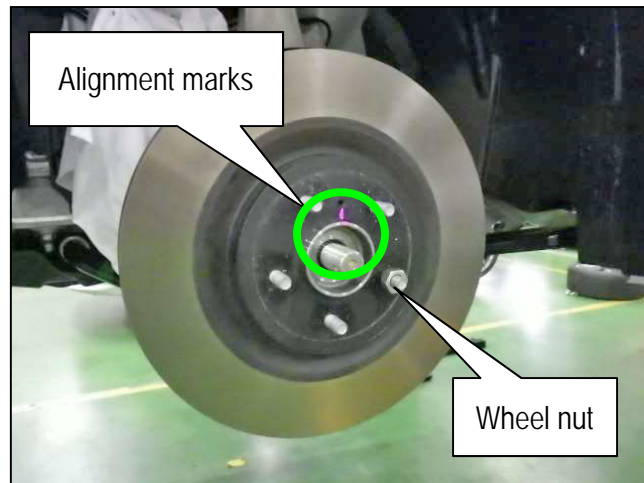


Figure 31

- Install the front brake caliper using the 2 existing bolts (22 mm).
- Tighten the front brake caliper bolts (22 mm) to 123.0 N•m (13.0 kg-m, 91 ft-lbs).

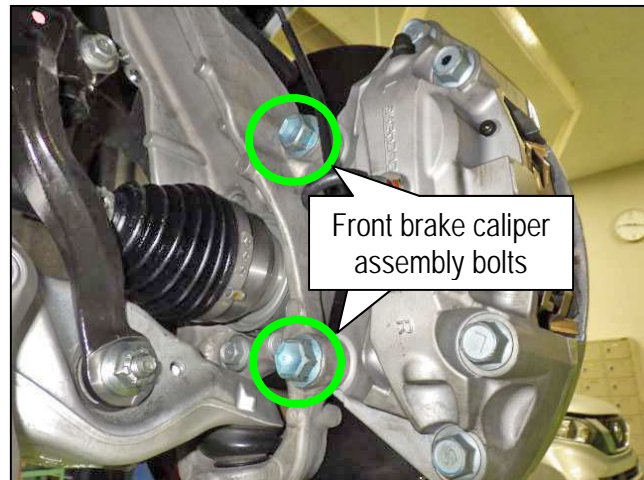


Figure 32

- Install the front brake hose bracket to the steering knuckle using the 2 existing bolts (12 mm).
- Tighten the front brake hose bracket bolts to 13.2 N•m (1.3 kg-m, 117 inch-lbs).

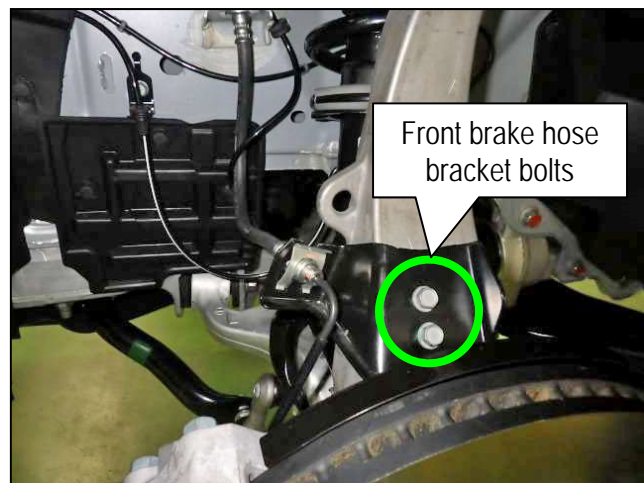


Figure 33

24. Install the front wheel speed sensor to the steering knuckle as follows:
- Install the front wheel speed sensor harness bracket to the steering knuckle using the existing bolt (10 mm).
 - Tighten the front wheel speed sensor harness bracket bolt (10 mm) to 13.2 N•m (1.3 kg-m, 117 inch-lbs).

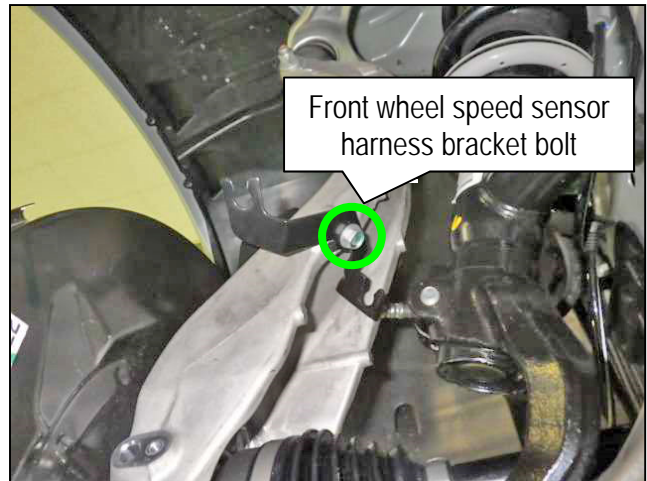


Figure 34

- Install the front wheel speed sensor grommets into the front wheel speed sensor harness bracket.
- Install the front wheel speed sensor to the steering knuckle using the existing bolt (10 mm).
- Tighten the front wheel speed sensor bolt (10 mm) to 9.0 N•m (0.9 kg-m, 80 inch-lbs).

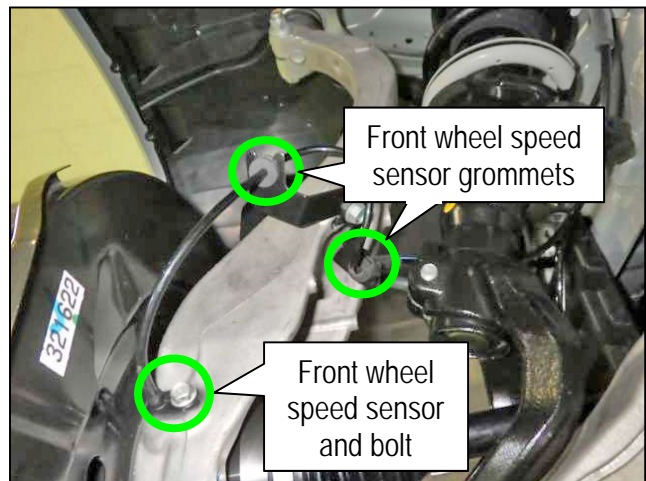


Figure 35

- For AWD models, install the wheel hub lock nut (32 mm) to the drive shaft.
- Tighten the wheel hub lock nut (32 mm) to 125.0 N•m (13.0 kg-m, 92 ft-lbs).
- Install a new cotter pin to the wheel hub lock nut.
- Remove any wheel nuts securing the front disc brake rotor.



Figure 36

25. Repeat steps 18–24 on pages 13 - 17 for the opposite side of the vehicle, and then proceed to step 26.
26. Install both front wheel and tire assemblies.
 - Tighten the wheel nuts to 108.0 N•m (11.0 kg-m, **80 ft-lbs**).
27. Perform a 4-wheel alignment.
28. Adjust the steering angle sensor neutral position using the CONSULT-III plus.
 - To adjust the steering angle sensor neutral position on EPS equipped vehicles, refer to the ESM section below.
 - **DIAGNOSIS > BRAKES > BRAKE CONTROL SYSTEM > BASIC INSPECTION > BRAKE CONTROL SYSTEM > ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION**
 - To adjust the steering angle sensor neutral position on DAST equipped vehicles, refer to the ESM section below.
 - **DIAGNOSIS > STEERING > STEERING CONTROL SYSTEM > BASIC INSPECTION > DIRECT ADAPTIVE STEERING > DAST CALIBRATION (MODE 1)**

IMPORTANT: Follow all cautions and notices in the ESM procedure.

PARTS INFORMATION

| DESCRIPTION | PART NUMBER | QUANTITY |
|-----------------------|-------------|----------|
| NUT-KNUCKLE SPINDLE | 40262-EG000 | 2 |
| PIN-COTTER | 08921-3252A | 4 |
| PIN-COTTER (AWD ONLY) | 40073-0L700 | 2 |
| SPINDLE-KNUCKLE, LH | D0015-4GA0A | 1 |
| SPINDLE-KNUCKLE, RH | D0014-4GA0A | 1 |

CLAIMS INFORMATION

Submit a "CM" line claim using the following claims coding:

| CAMPAIGN ("CM") ID | MODEL | DESCRIPTION | OP CODE | FRT |
|--------------------|-------|--|---------|---------|
| R21A5 | 2WD | Inspect both steering knuckles | R21A50 | 2.7 Hrs |
| | | Inspect both steering knuckles and replace one or both steering knuckles | R21A51 | 2.7 Hrs |
| | AWD | Inspect both steering knuckles | R21A52 | 2.8 Hrs |
| | | Inspect both steering knuckles and replace one or both steering knuckles | R21A53 | 2.8 Hrs |

AMENDMENT HISTORY

| PUBLISHED DATE | REFERENCE | DESCRIPTION |
|-----------------|------------|--|
| July 6, 2021 | ITB21-017 | Original bulletin published |
| August 23, 2021 | ITB21-017A | Steps 15 and 17 revised, Figure 19 updated |