

PROBLEM SYMPTOMS TABLE

HINT:

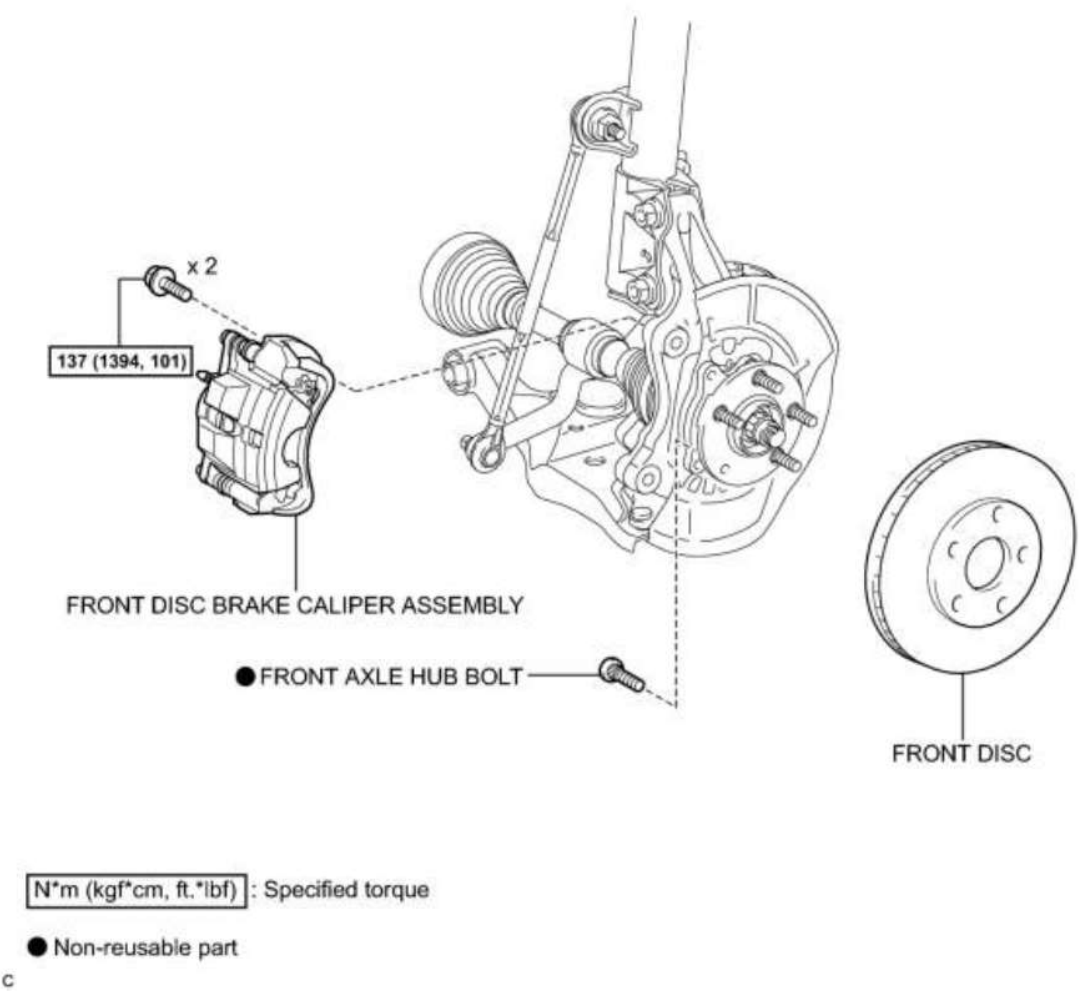
Use the table below to help determine the cause of problem symptoms. If multiple suspected areas are listed, the potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.

Axle System

Symptom	Suspected Area	See page
Wander or pulls	Tire (worn or improperly inflated)	INFO
	Front wheel alignment (incorrect)	INFO
	Rear wheel alignment (incorrect)	INFO
	Front axle hub bearing (loose or worn)	INFO
	Rear axle hub and bearing (loose or worn)	INFO
	Steering intermediate shaft (loose or worn)	INFO
	Steering gear (broken)	INFO
	Suspension parts (worn out)	-
Front wheel shimmy	Tire (worn or improperly inflated)	INFO
	Wheel (out of balance)	INFO
	Front shock absorber (worn out)	INFO
	Front wheel alignment (incorrect)	INFO
	Front lower ball joint (worn)	INFO
	Front axle hub bearing (loose or worn)	INFO
	Steering intermediate shaft (loose or worn)	INFO
	Steering gear (broken)	INFO
Rear wheel shimmy	Tire (worn or improperly inflated)	INFO
	Wheel (out of balance)	INFO
	Rear shock absorber (worn out)	INFO
	Rear axle hub and bearing (loose or worn)	INFO
	Rear wheel alignment (incorrect)	INFO

COMPONENTS

ILLUSTRATION



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REPLACEMENT

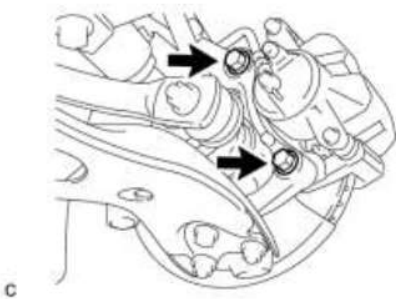
NOTICE:

When the brake pedal is first depressed after replacing the brake pads or pushing back the disc brake piston, DTC C1214 may be output. As there is no malfunction, clear the DTC.

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. REMOVE FRONT WHEEL
2. SEPARATE FRONT DISC BRAKE CALIPER ASSEMBLY



(a) Remove the 2 bolts and separate the front disc brake caliper assembly.

NOTICE:

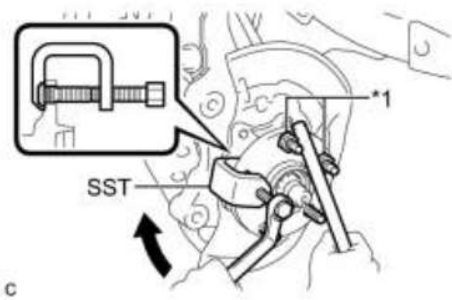
Use wire or an equivalent tool to keep the front disc brake caliper assembly from hanging down by the flexible hose.

3. REMOVE FRONT DISC
- INFO

4. REMOVE FRONT AXLE HUB BOLT

(a) Temporarily install 2 nuts to the front axle hub bolts as shown in the illustration.

Text in Illustration



*1	Nut
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Recommended service nut:

Thread diameter: 12.0 mm (0.472 in.)

Thread pitch: 1.5 mm (0.0591 in.)

NOTICE:

Install the nuts to prevent damage to the hub bolts.

(b) Using SST and a brass bar or an equivalent tool to hold the front axle, remove the front axle hub bolt.

SST: 09611-12010

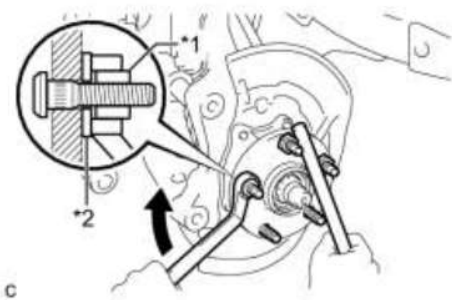
NOTICE:

Do not damage the threads of the front axle hub bolts.

5. INSTALL FRONT AXLE HUB BOLT

(a) Install a washer and nut to a new front axle hub bolt as shown in the illustration.

Text in Illustration



*1	Nut
*2	Washer

Recommended service nut:

Thread diameter: 12.0 mm (0.472 in.)

Thread pitch: 1.5 mm (0.0591 in.)

HINT:

Recommended thickness of the washer is 5 mm (0.197 in.) or more.

(b) Using a brass bar or an equivalent tool to hold the front axle, install the hub bolt by tightening the nut.

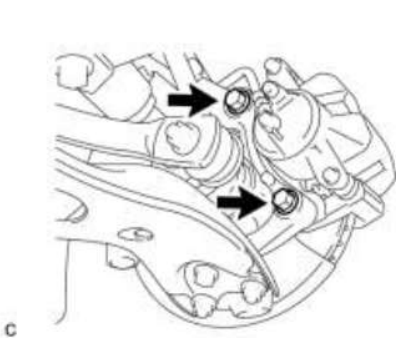
NOTICE:

- Install the nuts to prevent damage to the front axle hub bolts.
- Do not damage the threads of the front axle hub bolts.

(c) Remove the 3 nuts and washer from the 3 front axle hub bolts.

6. INSTALL FRONT DISC INFO

7. INSTALL FRONT DISC BRAKE CALIPER ASSEMBLY



(a) Install the front disc brake caliper assembly to the steering knuckle with the 2 bolts.

Torque: 137 N·m (1394 kgf·cm, 101ft·lbf)

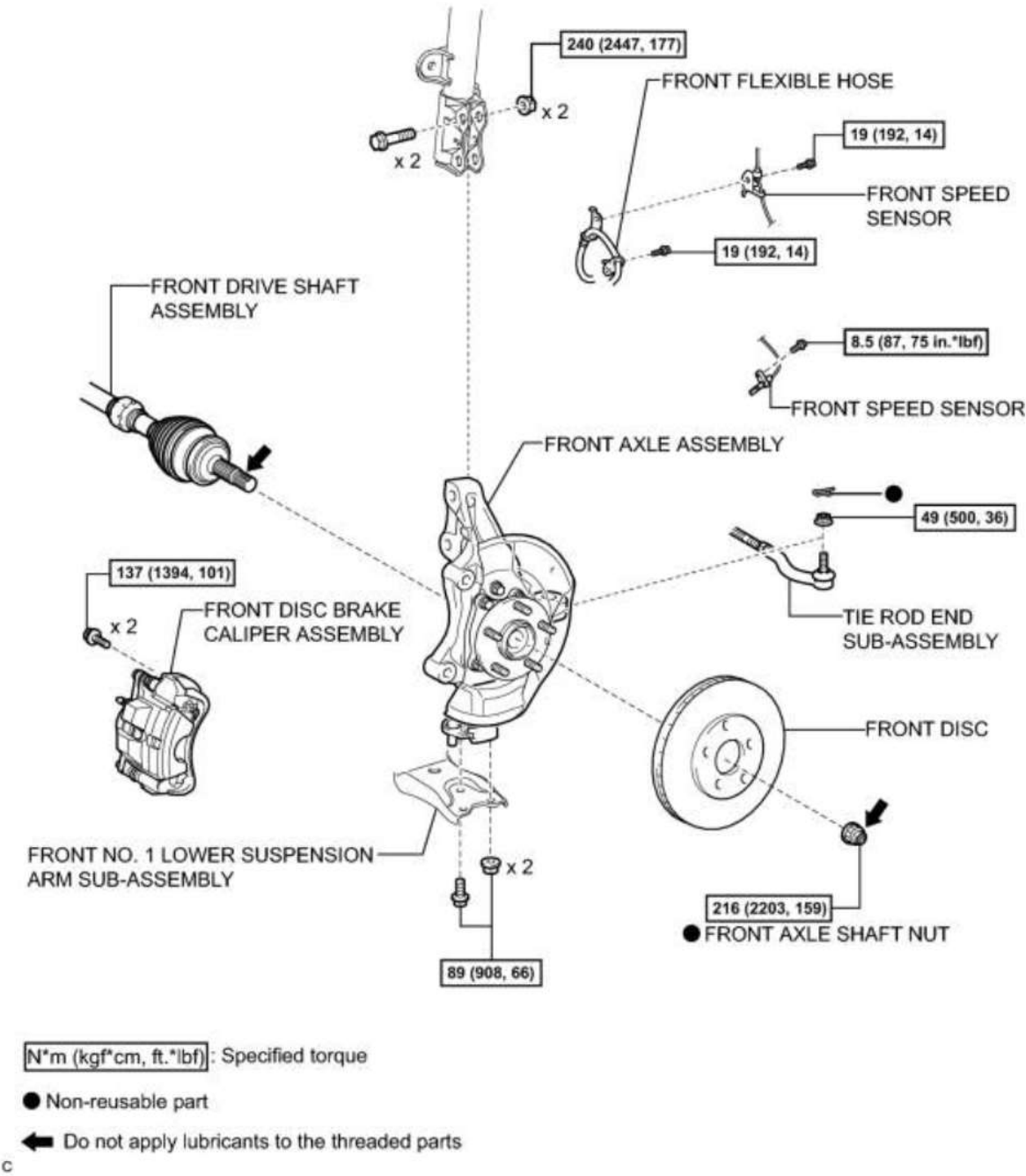
NOTICE:

Do not twist the brake hose when installing the front disc brake caliper assembly.

8. INSTALL FRONT WHEEL

Torque: **103 N·m (1050 kgf·cm, 76ft·lbf)**

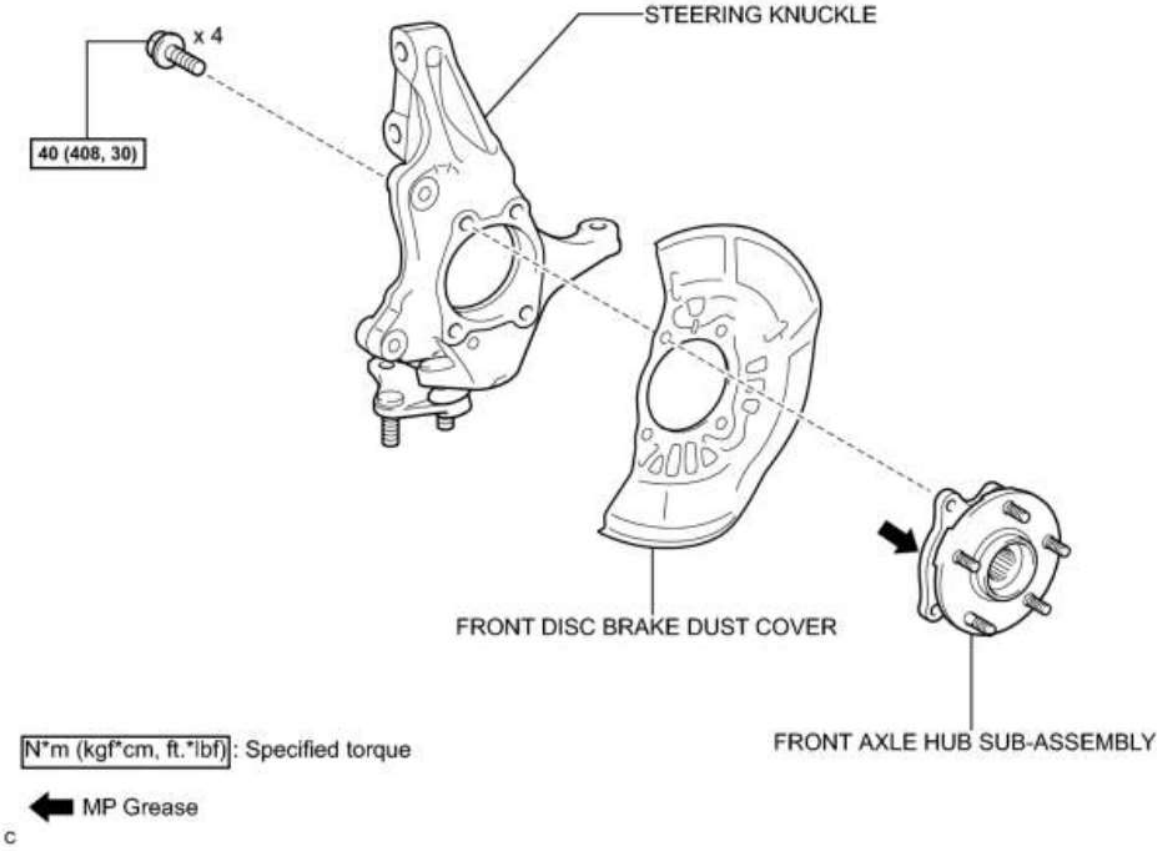
COMPONENTS
ILLUSTRATION



ILLUSTRATION

2010 Toyota Prius

Repair Manual



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ON-VEHICLE INSPECTION

NOTICE:

When the brake pedal is first depressed after replacing the brake pads or pushing back the disc brake piston, DTC C1214 may be output. As there is no malfunction, clear the DTC.

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. REMOVE FRONT WHEEL

2. SEPARATE FRONT DISC BRAKE CALIPER ASSEMBLY INFO

3. REMOVE FRONT DISC INFO

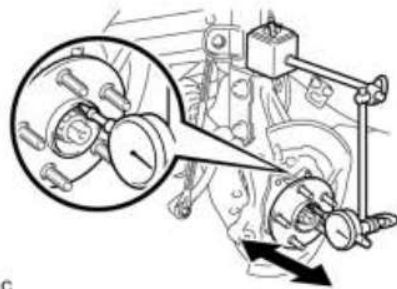
4. INSPECT FRONT AXLE HUB BEARING LOOSENESS

(a) Using a dial indicator, check for looseness near the center of the axle hub.

Maximum looseness:

0.05 mm (0.00196 in.)

- Ensure that the dial indicator is set perpendicular to the measurement surface.
- Keep the magnet of the dial indicator away from the front speed sensor.



HINT:

If the looseness exceeds the maximum, replace the front axle hub bearing.

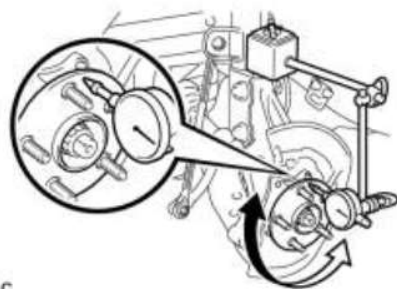
5. INSPECT FRONT AXLE HUB RUNOUT

(a) Using a dial indicator, check for runout on the surface of the axle hub outside the hub bolt.

Maximum runout:

0.05 mm (0.00196 in.)

- Ensure that the dial indicator is set perpendicular to the measurement surface.
- Keep the magnet of the dial indicator away from the front speed



sensor.

HINT:

If the runout exceeds the maximum, replace the front axle hub.

6. INSTALL FRONT DISC_ 

7. INSTALL FRONT DISC BRAKE CALIPER ASSEMBLY_ 

8. INSTALL FRONT WHEEL

Torque: **103 N·m (1050 kgf·cm, 76ft·lbf)**

REMOVAL

NOTICE:

When the brake pedal is first depressed after replacing the brake pads or pushing back the disc brake piston, DTC C1214 may be output. As there is no malfunction, clear the DTC.

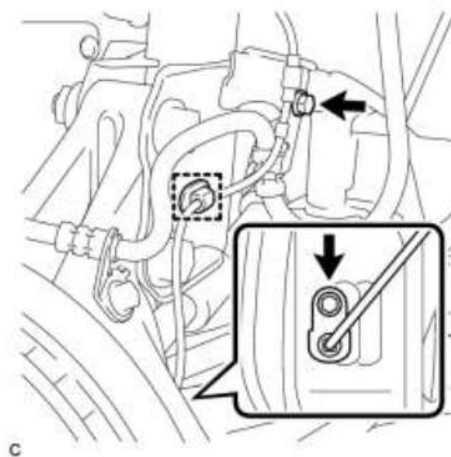
HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. REMOVE FRONT WHEEL

2. REMOVE FRONT AXLE SHAFT NUT INFO

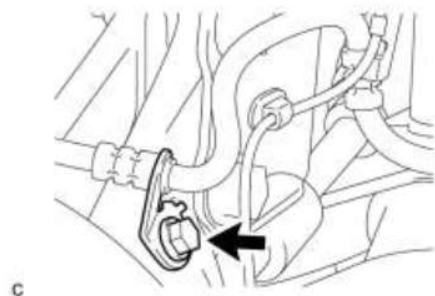
3. SEPARATE FRONT SPEED SENSOR



(a) Remove the 2 bolts and clamp, and separate the front speed sensor.

- Be sure to separate the front speed sensor from the front shock absorber with coil spring completely.
- Prevent foreign matter from attaching to the sensor tip.
- Be careful not to damage the front speed sensor.
- Clean the speed sensor installation hole and the contact surfaces every time the speed sensor is removed.

4. SEPARATE FRONT FLEXIBLE HOSE



(a) Remove the bolt and separate the front flexible hose from the steering knuckle.

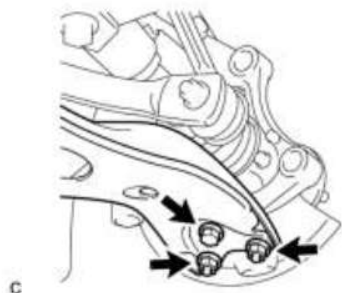
5. SEPARATE FRONT DISC BRAKE CALIPER ASSEMBLY INFO

6. REMOVE FRONT DISC INFO

7. SEPARATE TIE ROD END SUB-ASSEMBLY

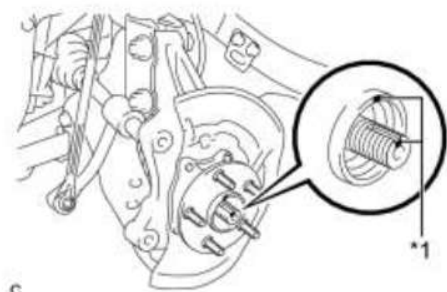
INFO

8. SEPARATE FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY



(a) Remove the bolt and 2 nuts, and separate the front No. 1 lower suspension arm sub-assembly from the front lower ball joint.

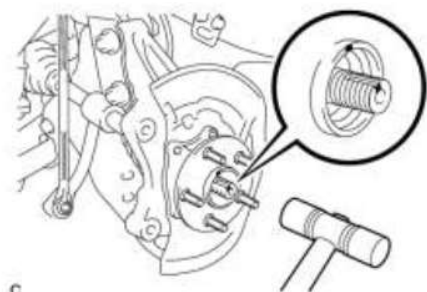
9. SEPARATE FRONT DRIVE SHAFT ASSEMBLY



(a) Put matchmarks on the front drive shaft assembly and front axle hub sub-assembly.

Text in Illustration

*1	Matchmark
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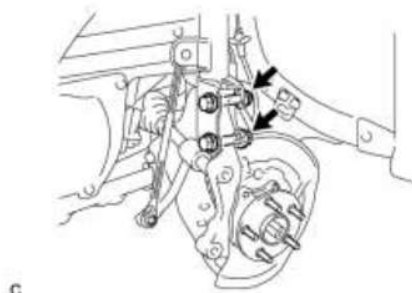


(b) Using a plastic hammer, separate the front drive shaft assembly from the front axle assembly. If it is difficult to separate, tap the end of the front drive shaft assembly using a brass bar and a hammer.

NOTICE:

Be careful not to damage the drive shaft boot and speed sensor rotor.

10. REMOVE FRONT AXLE ASSEMBLY



(a) Remove the 2 bolts, 2 nuts and front axle assembly.

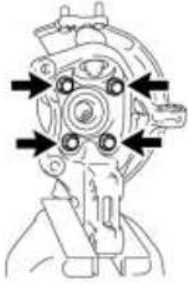
- When removing the nuts, keep the bolts from rotating.
- Be careful not to damage the drive shaft boot and speed sensor rotor.

11. REMOVE FRONT AXLE HUB SUB-ASSEMBLY

(a) Secure the front axle assembly between aluminium plates in a vise.

NOTICE:

Do not overtighten the vise.



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(b) Remove the 4 bolts, front axle hub sub-assembly and front disc brake dust cover.

NOTICE:

Do not drop the front axle hub sub-assembly.

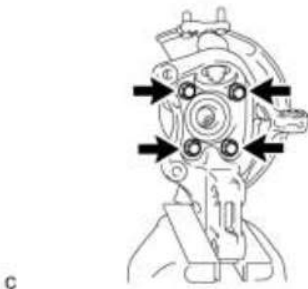
INSTALLATION

1. INSTALL FRONT AXLE HUB SUB-ASSEMBLY

(a) Secure the steering knuckle between aluminium plates in a vise.

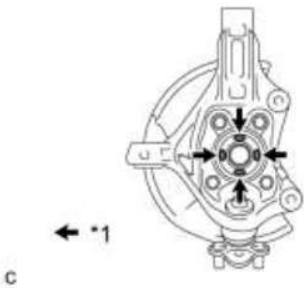
NOTICE:

Do not overtighten the vise.



(b) Install the front axle hub sub-assembly and front disc brake dust cover with the 4 bolts.

Torque: 40 N·m (408 kgf·cm, 30ft·lbf)



(c) Apply MP grease to the areas indicated by the arrows in the illustration on the front drive shaft assembly contact surface of the front axle hub sub-assembly.

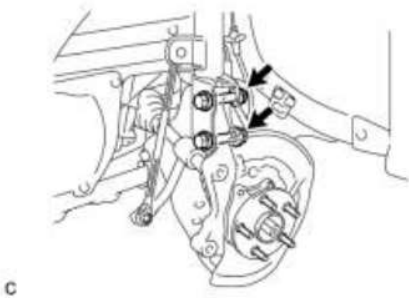
Text in Illustration

*1	MP grease
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HINT:

Apply 0.1 to 0.3 g (0.00353 to 0.0106 oz.) of MP grease to each area.

2. INSTALL FRONT AXLE ASSEMBLY



(a) Install the front axle assembly to the front shock absorber with the 2 bolts and 2 nuts.

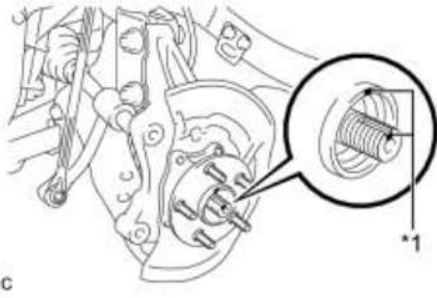
Torque: 240 N·m (2447 kgf·cm, 177ft·lbf)

NOTICE:

When installing the nuts, keep the bolts from rotating.

3. INSTALL FRONT DRIVE SHAFT ASSEMBLY

(a) Align the matchmarks and install the front drive shaft assembly to the



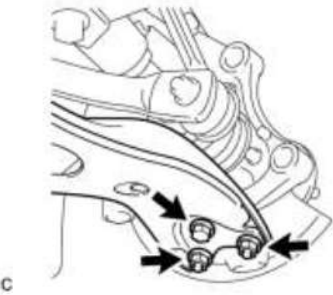
front axle hub sub-assembly.

Text in Illustration

*1

Matchmark

4. INSTALL FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY



(a) Install the front No. 1 lower suspension arm sub-assembly to the front lower ball joint with the bolt and 2 nuts.

Torque: **89 N·m (908 kgf·cm, 66ft·lbf)**

5. CONNECT TIE ROD END SUB-ASSEMBLY INFO

6. INSTALL FRONT DISC INFO

7. INSTALL FRONT DISC BRAKE CALIPER ASSEMBLY INFO

8. TEMPORARILY INSTALL FRONT AXLE SHAFT NUT

(a) Clean the threaded parts on the front drive shaft assembly and a new front axle shaft nut using a non-residue solvent.

NOTICE:

- Be sure to perform this work even when using a new drive shaft.
- Keep the threaded parts free of oil and foreign matter.

(b) Using a socket wrench (30 mm), while applying the brakes, temporarily install the front axle shaft nut.

Torque: **216 N·m (2203 kgf·cm, 159ft·lbf)**

NOTICE:

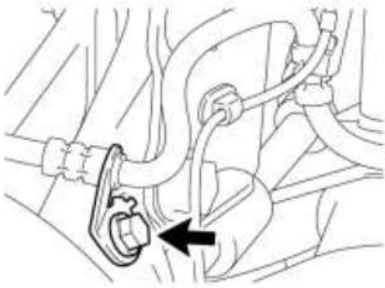
Stake the front axle shaft nut after inspecting for looseness and runout in the following steps.

HINT:

Keep depressing the brake pedal to prevent the drive shaft from rotating.

9. SEPARATE FRONT DISC BRAKE CALIPER ASSEMBLY_ INFO10. REMOVE FRONT DISC_ INFO11. INSPECT FRONT AXLE HUB BEARING LOOSENESS_ INFO12. INSPECT FRONT AXLE HUB RUNOUT_ INFO13. INSTALL FRONT DISC_ INFO14. INSTALL FRONT DISC BRAKE CALIPER ASSEMBLY_ INFO

15. INSTALL FRONT FLEXIBLE HOSE



(a) Install the front flexible hose to the steering knuckle with the bolt.

Torque: **19 N·m (192 kgf·cm, 14ft·lbf)**

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16. INSTALL FRONT SPEED SENSOR

(a) Install the front speed sensor and front flexible hose to the front shock absorber with the bolt and clamp.

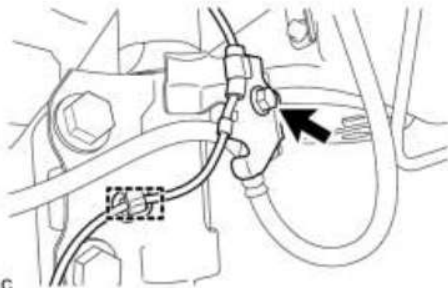
Torque: **19 N·m (192 kgf·cm, 14ft·lbf)**

NOTICE:

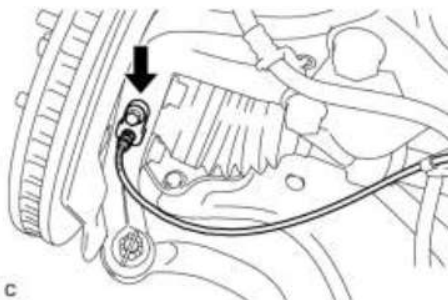
Do not twist the front speed sensor when installing it.

HINT:

Install the front flexible hose first and then the speed sensor harness bracket.



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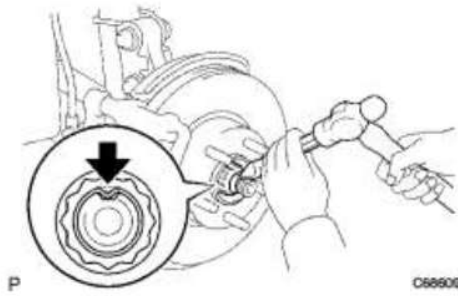
(b) Install the front speed sensor to the steering knuckle with the bolt.

Torque: **8.5 N·m (87 kgf·cm, 75in·lbf)**

NOTICE:

Do not twist the front speed sensor when installing it.

17. INSTALL FRONT AXLE SHAFT NUT



(a) Using a chisel and hammer, stake the front axle shaft nut.

18. INSTALL FRONT WHEEL

Torque: **103 N·m (1050 kgf·cm, 76ft·lbf)**

19. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

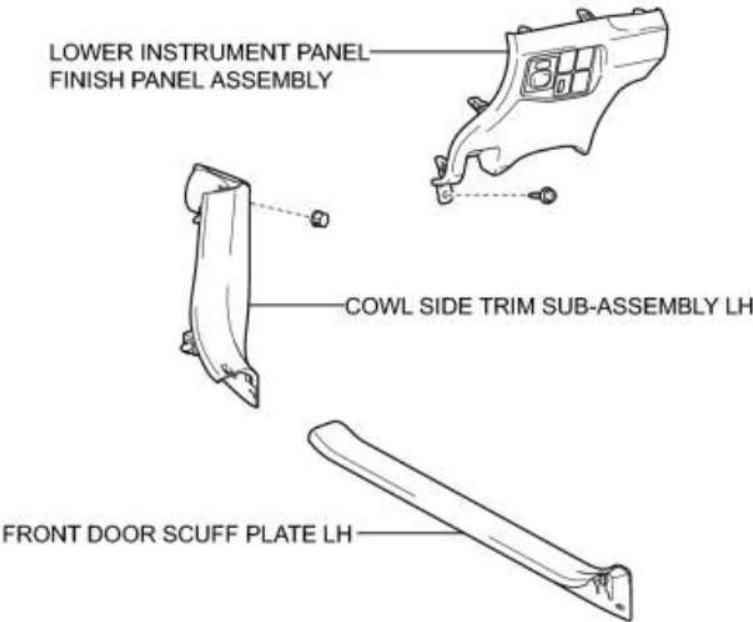
HINT: **INFO**

20. CHECK FOR SPEED SENSOR SIGNAL

HINT: **INFO**

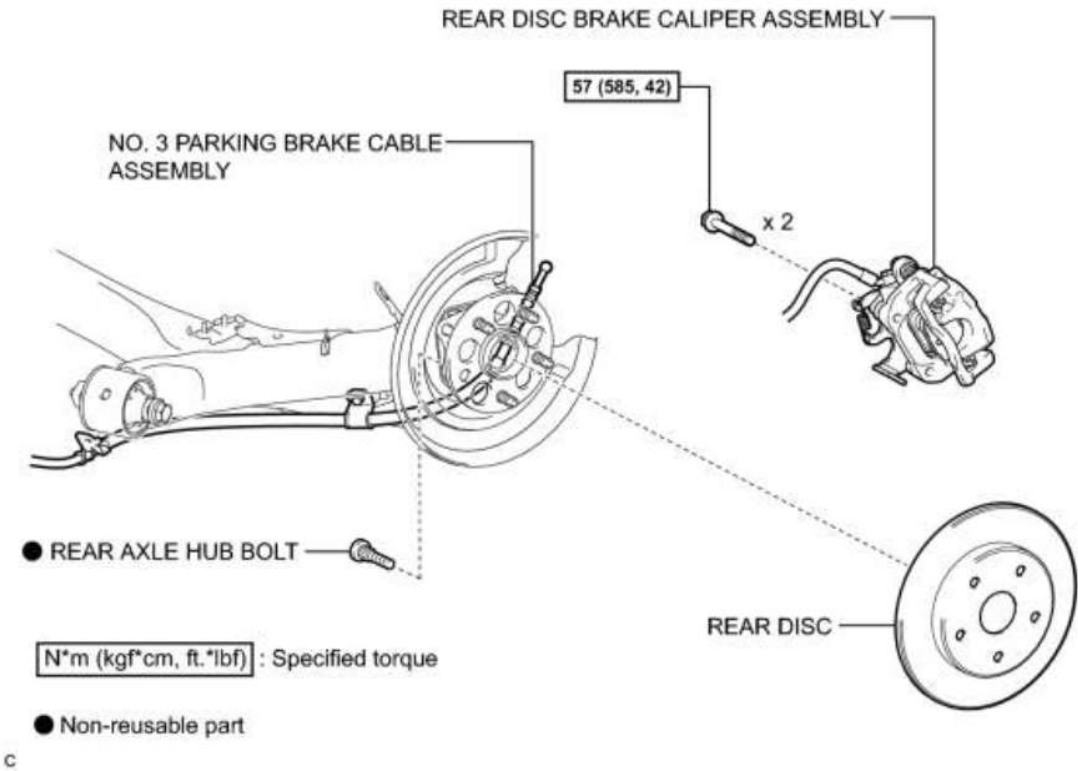
COMPONENTS

ILLUSTRATION



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REPLACEMENT

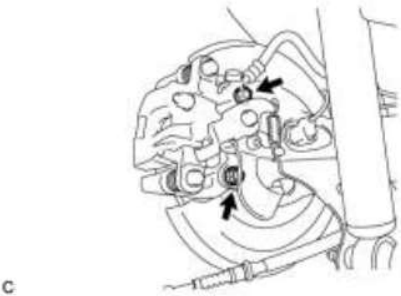
NOTICE:

When the brake pedal is first depressed after replacing the brake pads or pushing back the disc brake piston, DTC C1214 may be output. As there is no malfunction, delete the DTC.

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. REMOVE REAR WHEEL
2. REMOVE FRONT DOOR SCUFF PLATE LH_ INFO
3. REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH_ INFO
4. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL ASSEMBLY_ INFO
5. LOOSEN PARKING BRAKE CABLE_ INFO
6. DISCONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY_ INFO
7. SEPARATE REAR DISC BRAKE CALIPER ASSEMBLY



(a) Remove the 2 bolts, and separate the rear disc brake caliper assembly.

NOTICE:

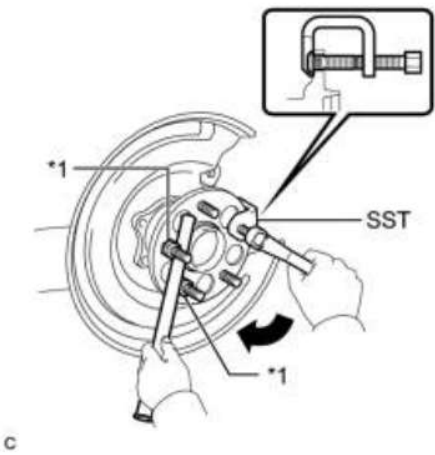
Use wire or an equivalent tool to keep the brake caliper from hanging down by the flexible hose.

8. REMOVE REAR DISC_ INFO
9. REMOVE REAR AXLE HUB BOLT

(a) Temporarily install 2 nuts to the rear axle hub bolt as shown in the illustration.

Text in Illustration

*1	Nut
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Recommended service nut:
Thread diameter: 12.0 mm (0.472 in.)
Thread pitch: 1.5 mm (0.0591 in.)
NOTICE:
Install the nuts to prevent damage to the hub bolts.

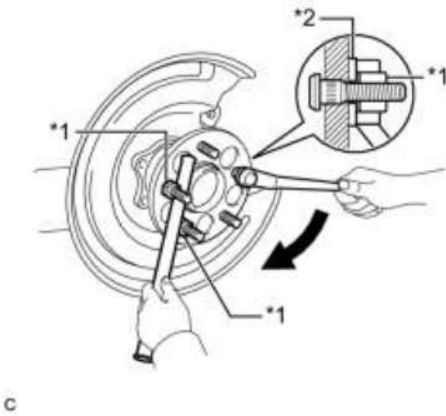
(b) Using SST and a brass bar or an equivalent tool to hold the rear axle hub and bearing assembly, remove the rear axle hub bolt.

SST: 09611-12010

NOTICE:

Do not damage the threads of the rear axle hub bolts.

10. INSTALL REAR AXLE HUB BOLT



(a) Temporarily install a new rear axle hub bolt to the rear axle hub and bearing assembly.

Text in Illustration

*1	Nut
*2	Washer

(b) Install a washer and nut to the new rear axle hub bolt as shown in the illustration.

Recommended service nut:
Thread diameter: 12.0 mm (0.472 in.)
Thread pitch: 1.5 mm (0.0591 in.)
HINT:

The thickness of the washer is preferably 5 mm (0.197 in.) or more.

(c) Using a brass bar or an equivalent tool to hold the rear axle hub and bearing assembly, install the rear axle hub bolt by tightening the nut.

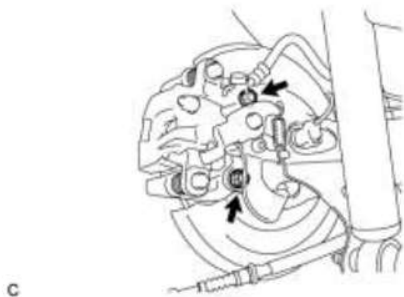
NOTICE:

- Install the nuts to prevent damage to the hub bolts.
- Do not damage the threads of the rear axle hub bolts.

(d) Remove the 3 nuts and washer from the 3 rear axle hub bolts.

11. INSTALL REAR DISC INFO

12. INSTALL REAR DISC BRAKE CALIPER ASSEMBLY



(a) Install the rear disc brake caliper assembly with the 2 bolts.

Torque: **57 N·m (585 kgf·cm, 42ft·lbf)**

13. CONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY INFO

14. ADJUST PARKING BRAKE

HINT: INFO

15. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL ASSEMBLY INFO

16. INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH INFO

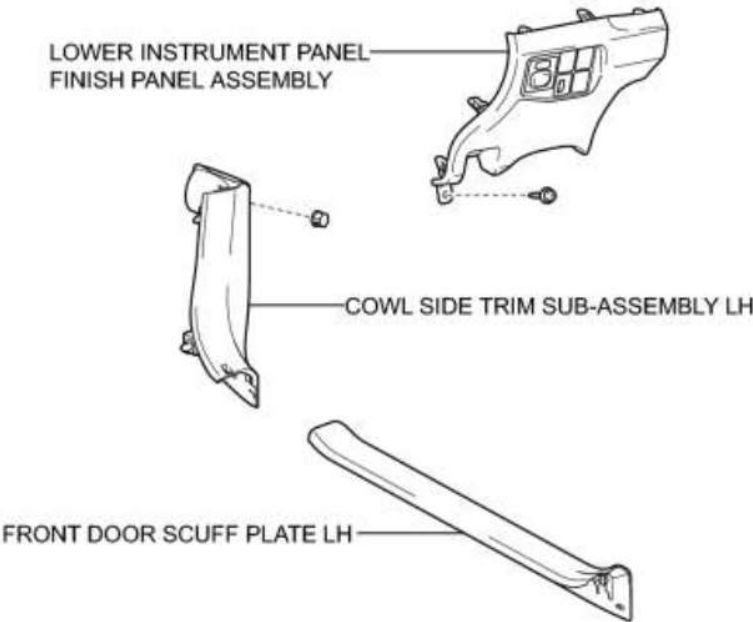
17. INSTALL FRONT DOOR SCUFF PLATE LH INFO

18. INSTALL REAR WHEEL

Torque: **103 N·m (1050 kgf·cm, 76ft·lbf)**

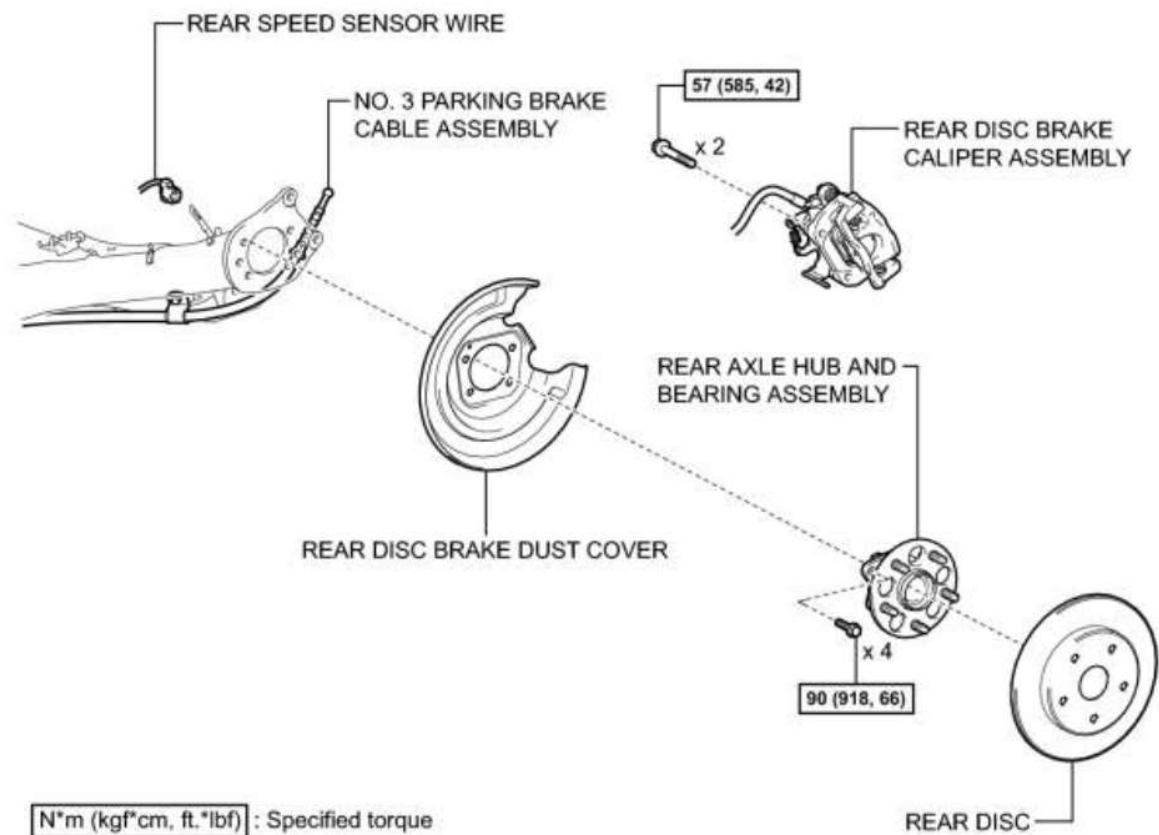
COMPONENTS

ILLUSTRATION



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ILLUSTRATION



N*m (kgf*cm, ft.*lbf) : Specified torque

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ON-VEHICLE INSPECTION

NOTICE:

When the brake pedal is first depressed after replacing the brake pads or pushing back the disc brake piston, DTC C1214 may be output. As there is no malfunction, delete the DTC.

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. REMOVE REAR WHEEL

2. REMOVE FRONT DOOR SCUFF PLATE LH_ INFO

3. REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH_ INFO

4. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL ASSEMBLY_ INFO

5. LOOSEN PARKING BRAKE CABLE_ INFO

6. DISCONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY_ INFO

7. SEPARATE REAR DISC BRAKE CALIPER ASSEMBLY_ INFO

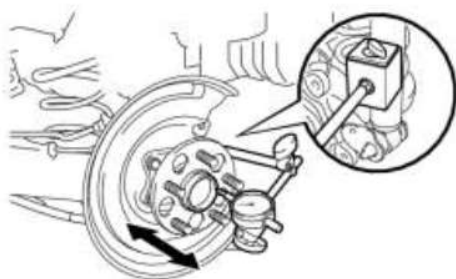
8. REMOVE REAR DISC_ INFO

9. INSPECT REAR AXLE HUB BEARING LOOSENESS

(a) Using a dial indicator, check for looseness near the center of the axle hub.

Maximum looseness:

0.05 mm (0.00196 in.)



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- Ensure that the dial indicator is set perpendicular to the measurement surface.
- Keep the magnet of the dial indicator away from the rear axle hub and bearing (rear speed sensor).

HINT:

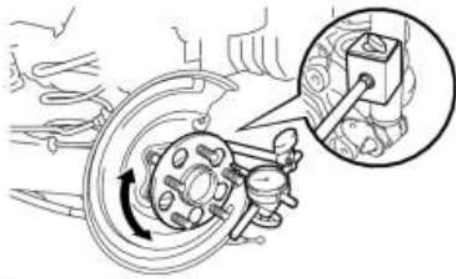
If the looseness exceeds the maximum, replace the rear axle hub and bearing assembly.

10. INSPECT REAR AXLE HUB RUNOUT

(a) Using a dial indicator, check for runout on the surface of the axle hub outside the rear axle hub bolt.

Maximum runout:

0.05 mm (0.00196 in.)



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- Ensure that the dial indicator is set perpendicular to the measurement surface.
- Make sure to install the tip of the dial indicator towards the outside of the rear axle hub bolt.
- Keep the magnet of the dial indicator away from the rear axle hub and bearing (rear speed sensor).

HINT:

If the runout exceeds the maximum, replace the rear axle hub and bearing assembly.

11. INSTALL REAR DISC_ INFO

12. INSTALL REAR DISC BRAKE CALIPER ASSEMBLY_ INFO

13. CONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY_ INFO

14. ADJUST PARKING BRAKE

HINT: INFO

15. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL ASSEMBLY_ INFO

16. INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH_ INFO

17. INSTALL FRONT DOOR SCUFF PLATE LH_ INFO

18. INSTALL REAR WHEEL

Torque: **103 N·m (1050 kgf·cm, 76ft·lbf)**

REMOVAL

NOTICE:

When the brake pedal is first depressed after replacing the brake pads or pushing back the disc brake piston, DTC C1214 may be output. As there is no malfunction, delete the DTC.

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. REMOVE REAR WHEEL

2. REMOVE FRONT DOOR SCUFF PLATE LH_ INFO

3. REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH_ INFO

4. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL ASSEMBLY_ INFO

5. LOOSEN PARKING BRAKE CABLE_ INFO

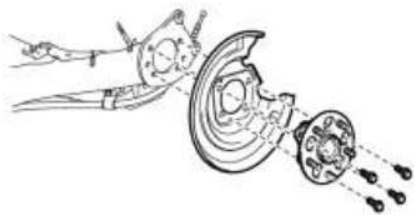
6. DISCONNECT REAR SPEED SENSOR WIRE_ INFO

7. DISCONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY_ INFO

8. SEPARATE REAR DISC BRAKE CALIPER ASSEMBLY_ INFO

9. REMOVE REAR DISC_ INFO

10. REMOVE REAR AXLE HUB AND BEARING ASSEMBLY



(a) Remove the 4 bolts, rear axle hub and bearing assembly and rear disc brake dust cover from the rear axle beam assembly.

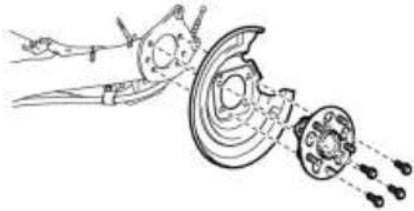
c

INSTALLATION

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. INSTALL REAR AXLE HUB AND BEARING ASSEMBLY



(a) Install the rear axle hub and bearing assembly and rear disc brake dust cover to the rear axle beam assembly with the 4 bolts.

Torque: **90 N·m (918 kgf·cm, 66ft·lbf)**

c

2. INSPECT REAR AXLE HUB BEARING LOOSENESS_ INFO

3. INSPECT REAR AXLE HUB RUNOUT_ INFO

4. INSTALL REAR DISC_ INFO

5. INSTALL REAR DISC BRAKE CALIPER ASSEMBLY_ INFO

6. CONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY_ INFO

7. CONNECT REAR SPEED SENSOR WIRE_ INFO

8. ADJUST PARKING BRAKE

HINT: INFO

9. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL ASSEMBLY_ INFO

10. INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH_ INFO

11. INSTALL FRONT DOOR SCUFF PLATE LH_ INFO

12. INSTALL REAR WHEEL

Torque: **103 N·m (1050 kgf·cm, 76ft·lbf)**

13. CHECK FOR SPEED SENSOR SIGNAL

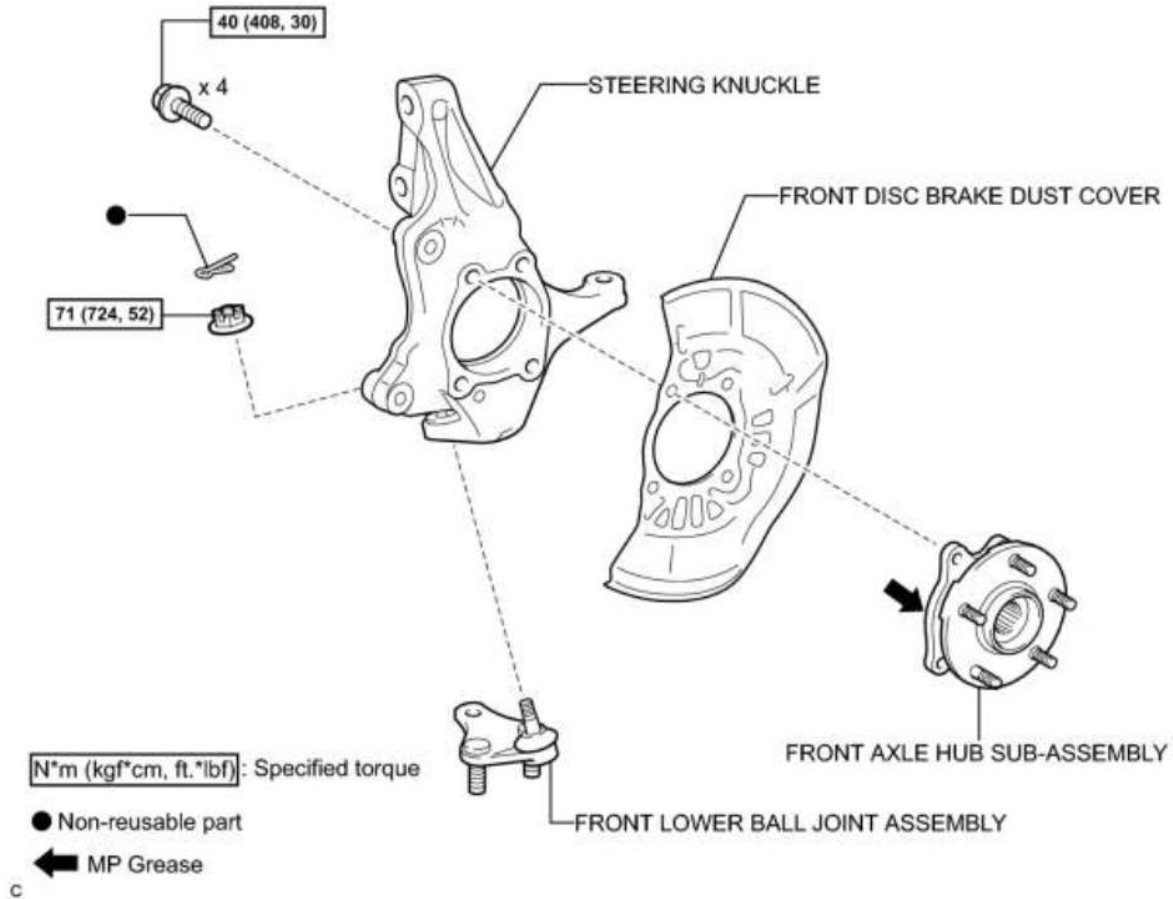
HINT: INFO

2010 Toyota Prius

Repair Manual

COMPONENTS

ILLUSTRATION



REMOVAL

NOTICE:

When the brake pedal is first depressed after replacing the brake pads or pushing back the disc brake piston, DTC C1214 may be output. As there is no malfunction, clear the DTC.

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. REMOVE FRONT AXLE ASSEMBLY

HINT:

Refer to the procedures up to Remove Front Axle Assembly [INFO](#).

2. REMOVE FRONT LOWER BALL JOINT ASSEMBLY [INFO](#)

3. REMOVE STEERING KNUCKLE

(a) Secure the front axle assembly between aluminium plates in a vise.

NOTICE:

Do not overtighten the vise.



(b) Remove the 4 bolts, front axle hub sub-assembly and front disc brake dust cover.

NOTICE:

Do not drop the front axle hub sub-assembly.

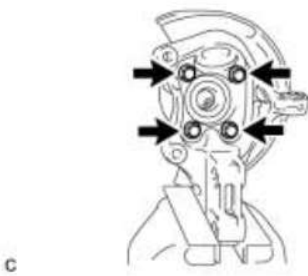
INSTALLATION

1. INSTALL STEERING KNUCKLE

(a) Secure the steering knuckle between aluminium plates in a vise.

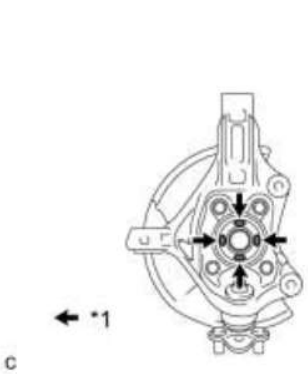
NOTICE:

Do not overtighten the vise.



(b) Install the front axle hub sub-assembly and front disc brake dust cover with the 4 bolts.

Torque: **40 N·m (408 kgf·cm, 30ft·lbf)**



(c) Apply MP grease to the areas indicated by the arrows in the illustration on the front drive shaft assembly contact surface of the front axle hub sub-assembly.

Text in Illustration

*1	MP grease
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HINT:

Apply 0.1 to 0.3 g (0.00353 to 0.0106 oz.) of MP grease to each area.

2. INSTALL FRONT LOWER BALL JOINT ASSEMBLY_

INFO

3. INSTALL FRONT AXLE ASSEMBLY

HINT:

Refer to the procedures from Install Front Axle Assembly

INFO