

Last Modified: 3-10-2010	6.4 T	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001IWD01CX
Title: AXLE AND DIFFERENTIAL: AXLE SYSTEM: PROBLEM SYMPTOMS TABLE (2010 Corolla)		

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

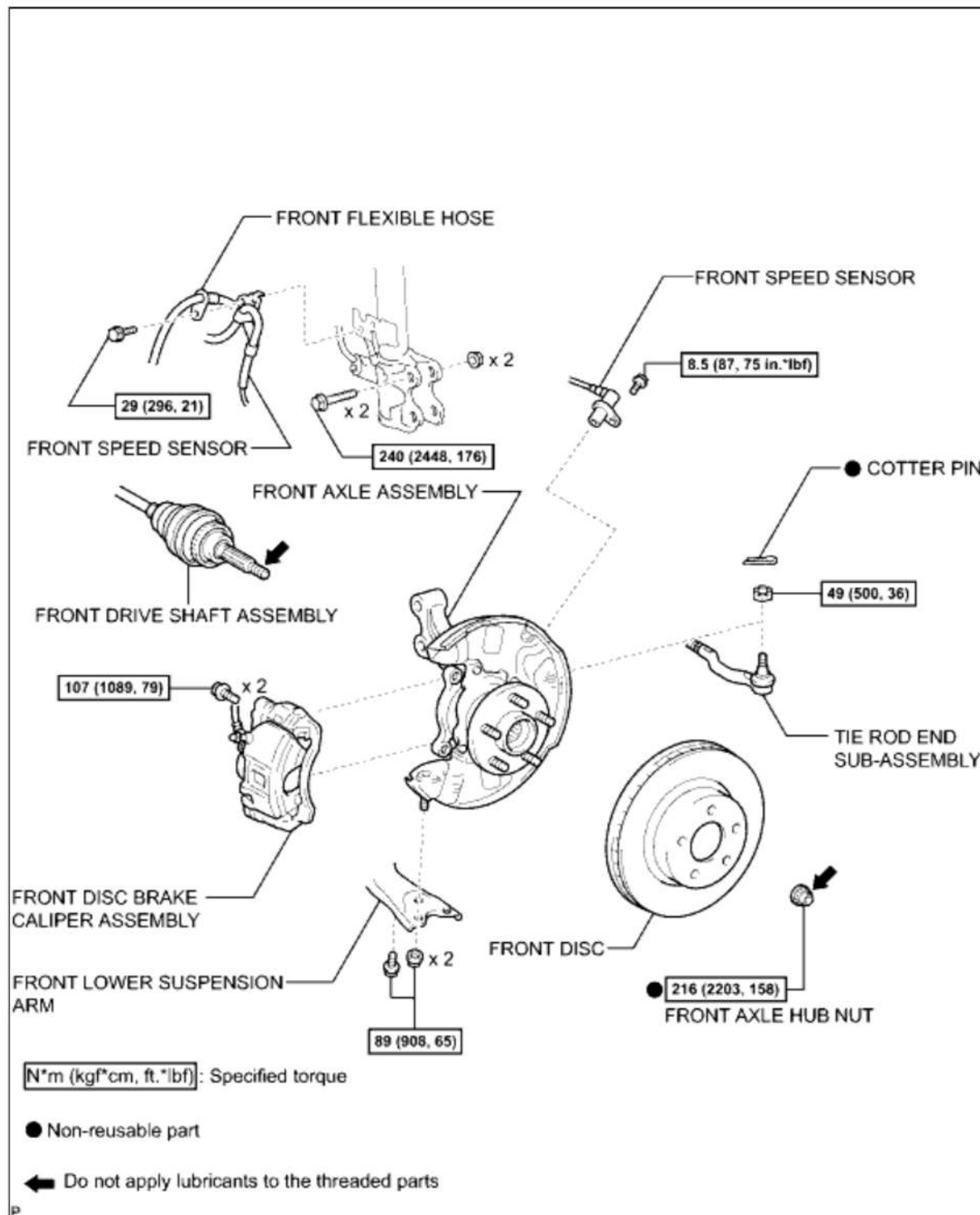
SYMPTOM	SUSPECTED AREA	SEE PAGE
Wander or pulls	Tire (worn or improperly inflated)	INFO
	Front wheel alignment (incorrect)	INFO
	Rear wheel alignment (incorrect)	INFO
	Front axle hub bearing (loose or worn)	INFO
	Rear axle hub and bearing (loose or worn)	INFO
	Suspension parts (worn out)	-
Front wheel 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
Rear wheel shimmy	Tire (worn or improperly inflated)	INFO
	Wheel (out of balance)	INFO



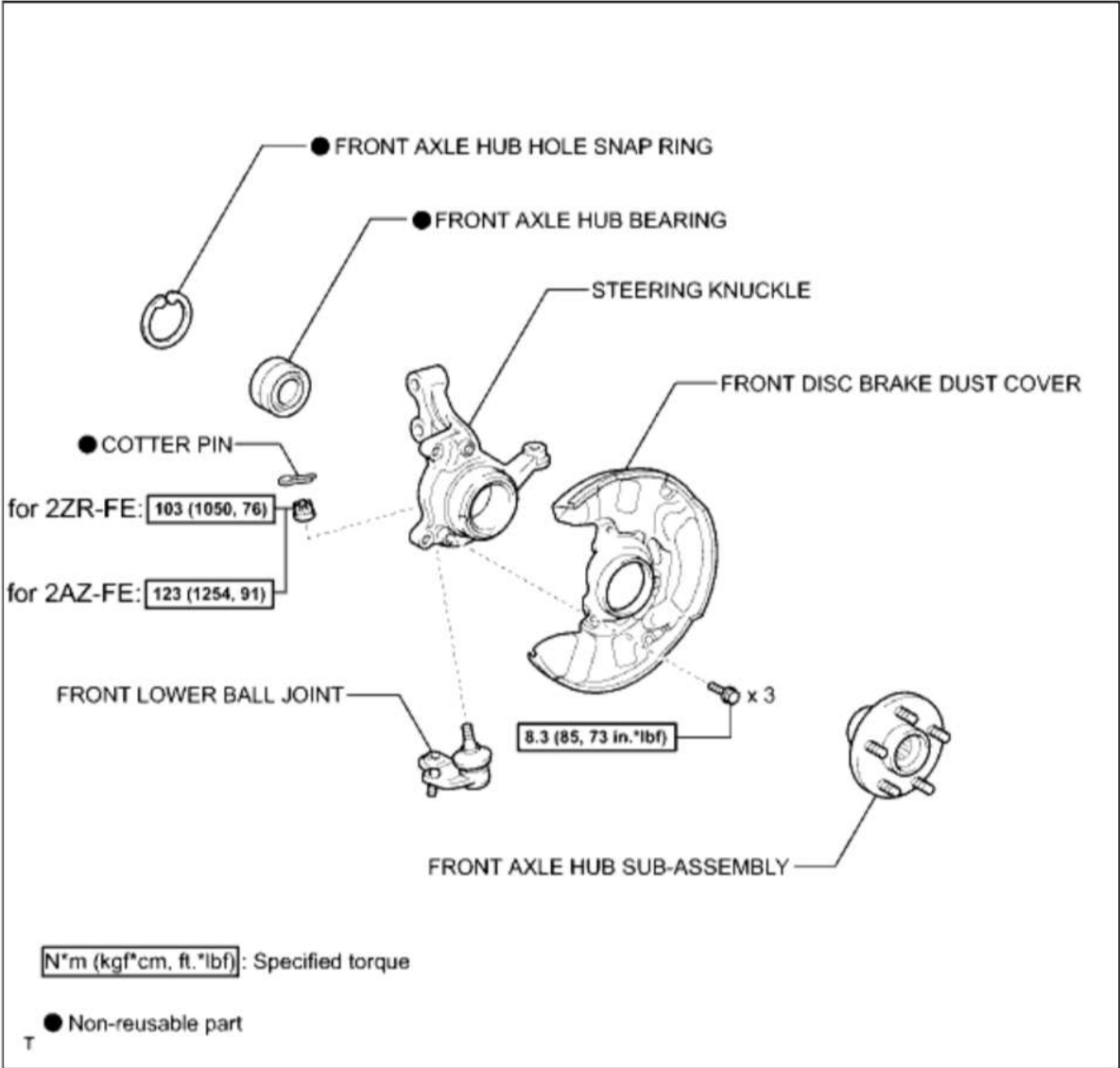
Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001IWY01MX
Title: AXLE AND DIFFERENTIAL: FRONT AXLE HUB: COMPONENTS (2010 Corolla)		

COMPONENTS

ILLUSTRATION



ILLUSTRATION



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Last Modified: 3-10-2010	6.4 G	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001IX201IX
Title: AXLE AND DIFFERENTIAL: FRONT AXLE HUB: ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

HINT:

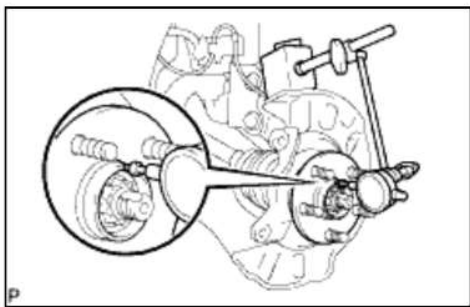
- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

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.

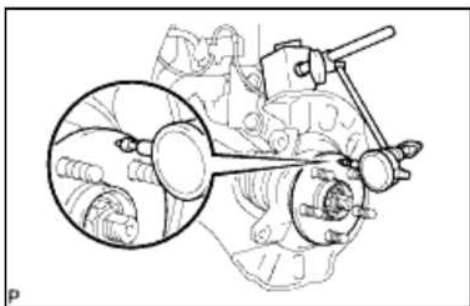
Maximum looseness:
0.05 mm (0.00196 in.)

NOTICE:

Ensure that the dial indicator is set perpendicular to the measurement surface.

If 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:
0.03 mm (0.00118 in.)

NOTICE:

Ensure that the dial indicator is set perpendicular to the measurement surface.

If runout exceeds the maximum, replace the front axle hub sub-assembly.

6. INSTALL FRONT DISC INFO

7. INSTALL FRONT DISC BRAKE CALIPER ASSEMBLY INFO

8. INSTALL FRONT WHEEL

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



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001IWZ022X
Title: AXLE AND DIFFERENTIAL: FRONT AXLE HUB: REMOVAL (2010 Corolla)		

REMOVAL

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 HUB NUT (for 2AZ-FE) INFO

3. REMOVE FRONT AXLE HUB NUT (for 2ZR-FE) INFO

4. SEPARATE FRONT SPEED SENSOR (for TMC Made) INFO

5. SEPARATE FRONT SPEED SENSOR (except TMC Made) INFO

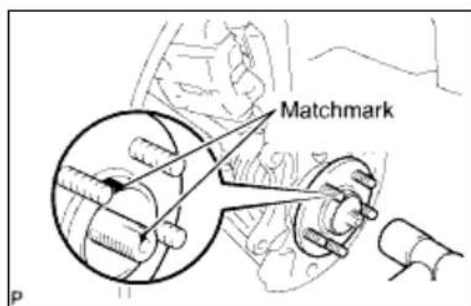
6. SEPARATE FRONT DISC BRAKE CALIPER ASSEMBLY INFO

7. REMOVE FRONT DISC INFO

8. SEPARATE TIE ROD END SUB-ASSEMBLY INFO

9. SEPARATE FRONT LOWER SUSPENSION ARM INFO

10. REMOVE FRONT AXLE ASSEMBLY



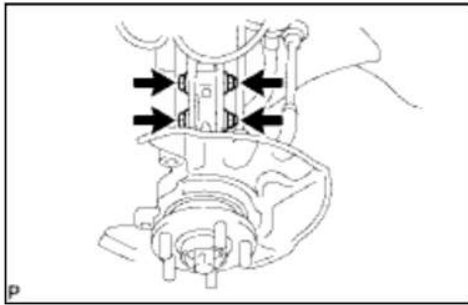
(a) Put matchmarks on the front drive shaft assembly and the front axle hub sub-assembly.

(b) Using a plastic hammer, separate the front drive shaft assembly from the front axle assembly.

NOTICE:

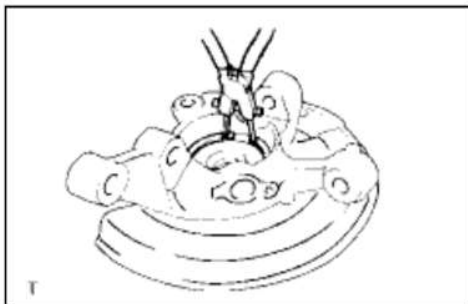
Be careful not to damage the drive shaft boot or speed sensor rotor.

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



11. REMOVE FRONT LOWER BALL JOINT INFO

12. REMOVE FRONT AXLE HUB HOLE SNAP RING



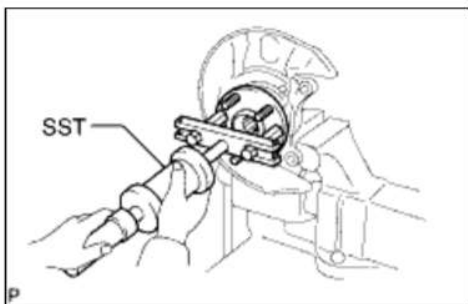
(a) Using snap ring pliers, remove the front axle hub hole snap ring.

13. REMOVE FRONT AXLE HUB SUB-ASSEMBLY

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

NOTICE:

Do not overtighten the vise.



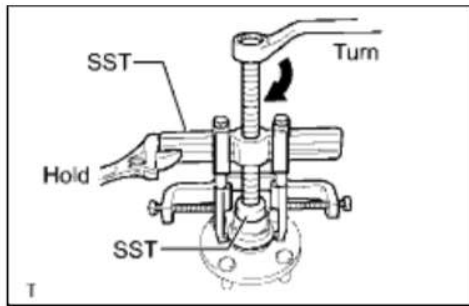
(b) Using SST, remove the front axle hub sub-assembly.

SST: 09520-00031

(c) Using SST, remove the bearing inner race (outside) from the front axle hub sub-assembly.

SST: 09950-40011

09951-04020



09952-04010

09953-04030

09954-04010

09955-04061

09957-04010

09958-04011

SST: 09950-60010

09951-00370

NOTICE:

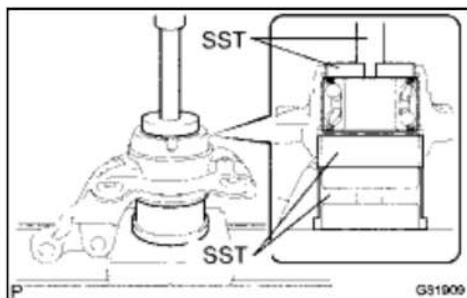
Apply a small amount of grease to the threads and tip of SST (09953-04020) before use.

14. REMOVE FRONT DISC BRAKE DUST COVER

- (a) Remove the 3 bolts and the front disc brake dust cover from the steering knuckle.

15. REMOVE FRONT AXLE HUB BEARING

- (a) Place the front axle hub bearing inner race (outside) on the front axle hub bearing.



- (b) Using SST and a press, remove the front axle hub bearing from the steering knuckle.

SST: 09223-15020**SST: 09387-02010****SST: 09950-60010**

09951-00640

SST: 09950-70010

09951-07100

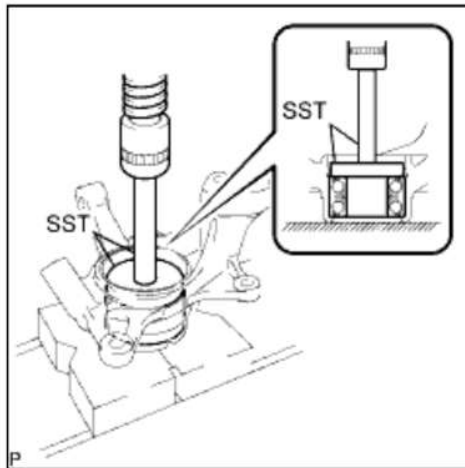


TOYOTA

Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001IWX022X
Title: AXLE AND DIFFERENTIAL: FRONT AXLE HUB: INSTALLATION (2010 Corolla)		

INSTALLATION

1. INSTALL FRONT AXLE HUB BEARING



(a) Using SST and a press, install a new front axle hub bearing to the steering knuckle.

SST: 09950-60020

09951-00720

SST: 09950-70010

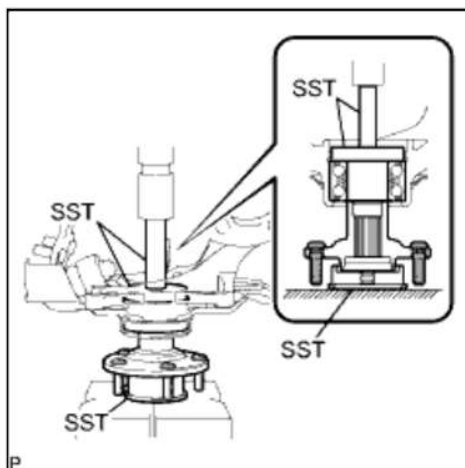
09951-07100

2. INSTALL FRONT DISC BRAKE DUST COVER

(a) Install the disc brake dust cover to the steering knuckle with the 3 bolts.

Torque: 8.3 N·m (85 kgf·cm, 73in·lbf)

3. INSTALL FRONT AXLE HUB SUB-ASSEMBLY



(a) Using SST and a press, install the front axle hub sub-assembly.

SST: 09608-32010

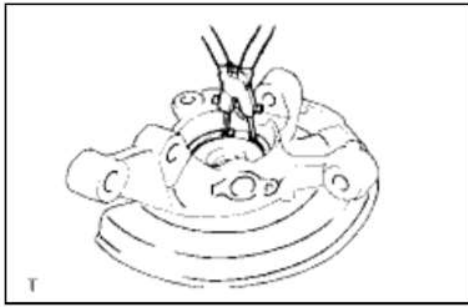
SST: 09950-60010

09951-00600

SST: 09950-70010

09951-07100

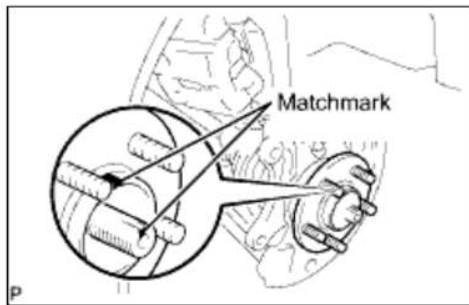
4. INSTALL FRONT AXLE HUB HOLE SNAP RING



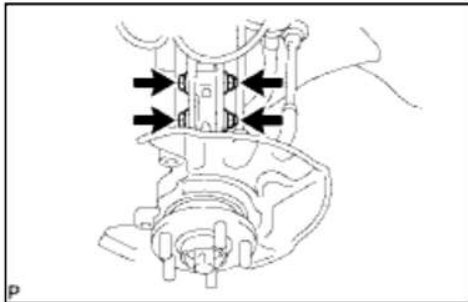
- (a) Using snap ring pliers, install a new front axle hub hole snap ring.

5. INSTALL FRONT LOWER BALL JOINT INFO

6. INSTALL FRONT AXLE ASSEMBLY



- (a) Align the matchmarks and install the front drive shaft assembly to the front axle hub sub-assembly.



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

Torque: 240 N·m (2448 kgf·cm, 176ft·lbf)

NOTICE:

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

7. INSTALL FRONT LOWER SUSPENSION ARM INFO

8. INSTALL TIE ROD END SUB-ASSEMBLY INFO

9. INSTALL FRONT DISC INFO

10. INSTALL FRONT DISC BRAKE CALIPER ASSEMBLY INFO

11. TEMPORARILY INSTALL FRONT AXLE HUB NUT

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

NOTICE:

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

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

Torque: 216 N·m (2203 kgf·cm, 158ft·lbf)

HINT:

- Stake the axle hub nut after inspecting for looseness and runout in the following steps.
- Tighten the axle hub nut while the brakes are applied to prevent the front axle from rotating.

12. SEPARATE FRONT DISC BRAKE CALIPER ASSEMBLY INFO

13. REMOVE FRONT DISC INFO

14. INSPECT FRONT AXLE HUB BEARING LOOSENESS INFO

15. INSPECT FRONT AXLE HUB RUNOUT INFO

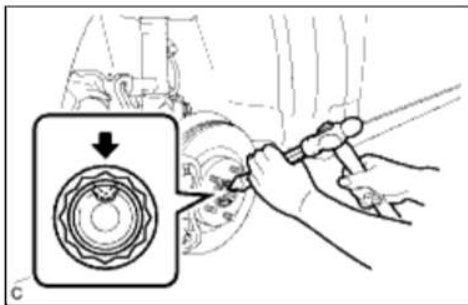
16. INSTALL FRONT DISC INFO

17. INSTALL FRONT DISC BRAKE CALIPER ASSEMBLY INFO

18. CONNECT FRONT SPEED SENSOR (for TMC Made) INFO

19. CONNECT FRONT SPEED SENSOR (except TMC Made) INFO

20. INSTALL FRONT AXLE HUB NUT



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

21. INSTALL FRONT WHEEL

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

22. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

HINT: INFO

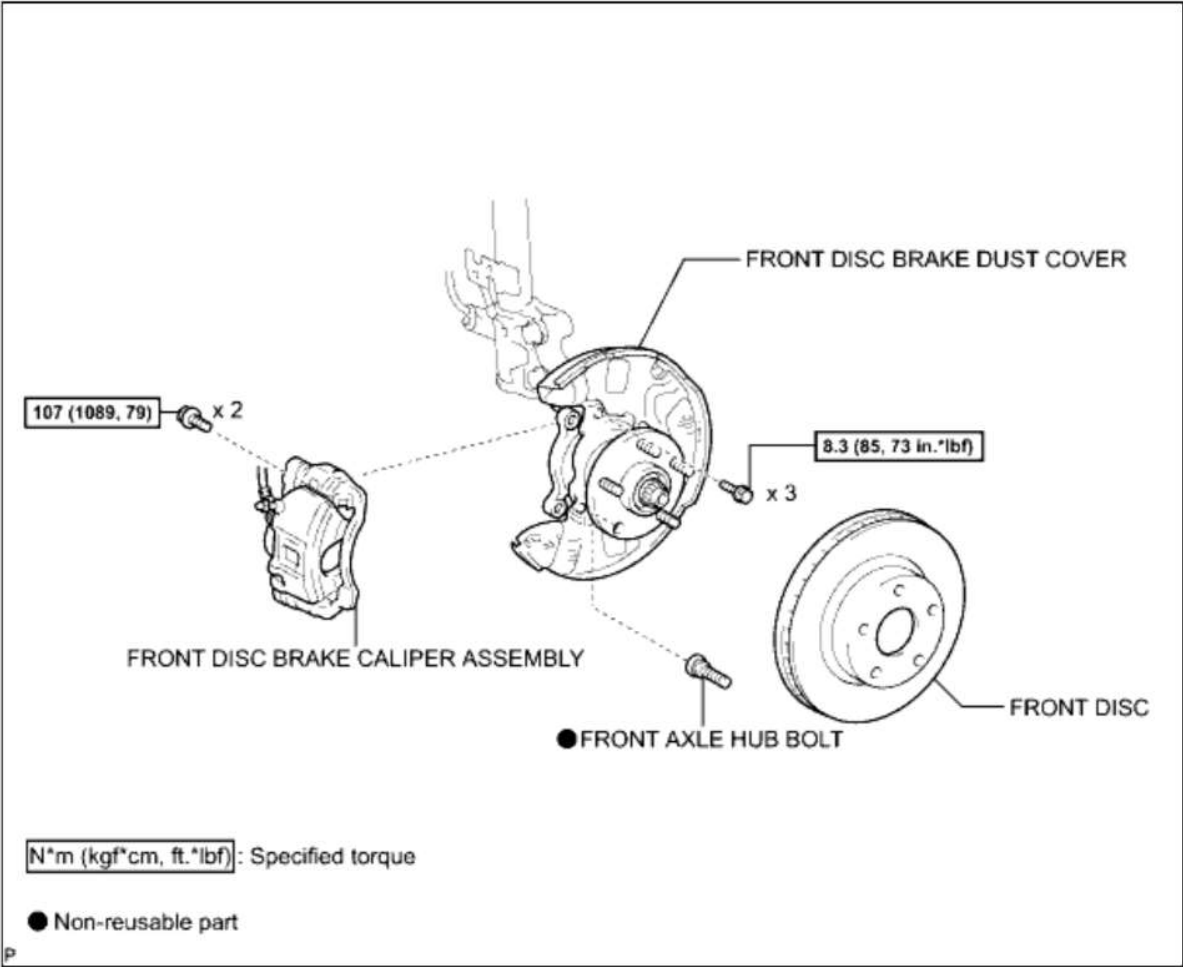
23. CHECK FOR SPEED SENSOR SIGNAL

HINT: INFO

Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM0000014NA01IX
Title: AXLE AND DIFFERENTIAL: FRONT AXLE HUB BOLT: COMPONENTS (2010 Corolla)		

COMPONENTS

ILLUSTRATION



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM0000012L001UX
Title: AXLE AND DIFFERENTIAL: FRONT AXLE HUB BOLT: REPLACEMENT (2010 Corolla)		

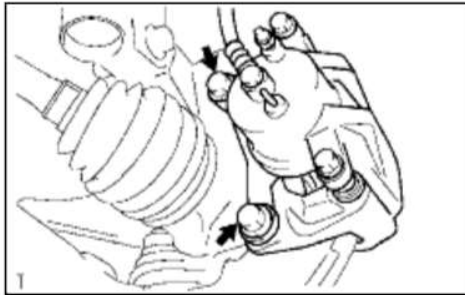
REPLACEMENT

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



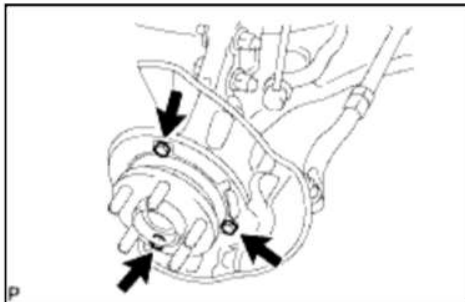
- (a) Remove the 2 bolts and separate the front disc brake caliper assembly from the steering knuckle.

NOTICE:

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

3. REMOVE FRONT DISC INFO

4. SEPARATE FRONT DISC BRAKE DUST COVER



- (a) Remove the 3 bolts and separate the front disc brake dust cover.

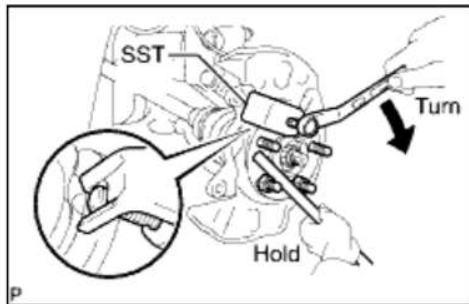
5. REMOVE FRONT AXLE HUB BOLT

- (a) Temporarily install the 2 nuts and washers to the front axle hub bolt as shown in the illustration.

Recommended service nut:

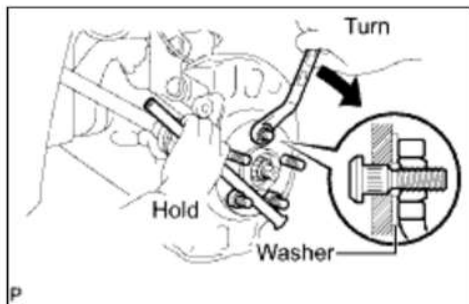
Thread diameter

12.0 mm (0.472 in.)

**Thread pitch**

1.5 mm (0.0591 in.)

- (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**6. INSTALL FRONT AXLE HUB BOLT**

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

Recommended service nut:

Thread diameter

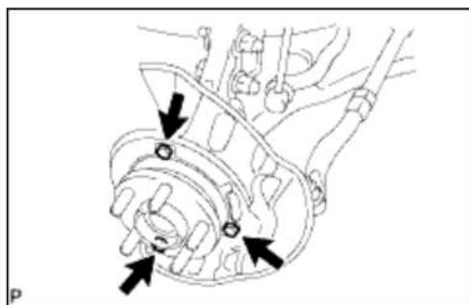
12.0 mm (0.472 in.)

Thread pitch

1.5 mm (0.0591 in.)

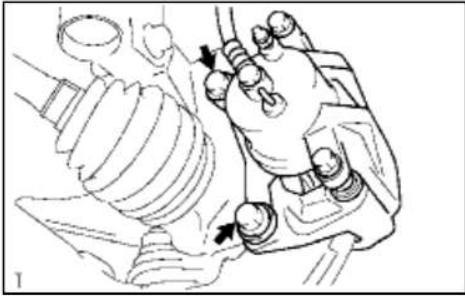
HINT:**Recommended thickness of the washer is 5 mm (0.197 in.) or more.**

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

7. INSTALL FRONT DISC BRAKE DUST COVER

- (a) Install the front disc brake dust cover with the 3 bolts.

Torque: 8.3 N·m (85 kgf·cm, 73in·lbf)**8. INSTALL FRONT DISC****9. INSTALL FRONT DISC BRAKE CALIPER ASSEMBLY**



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

Torque: 107 N·m (1089 kgf·cm, 79ft·lbf)

NOTICE:

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

10. INSTALL FRONT WHEEL

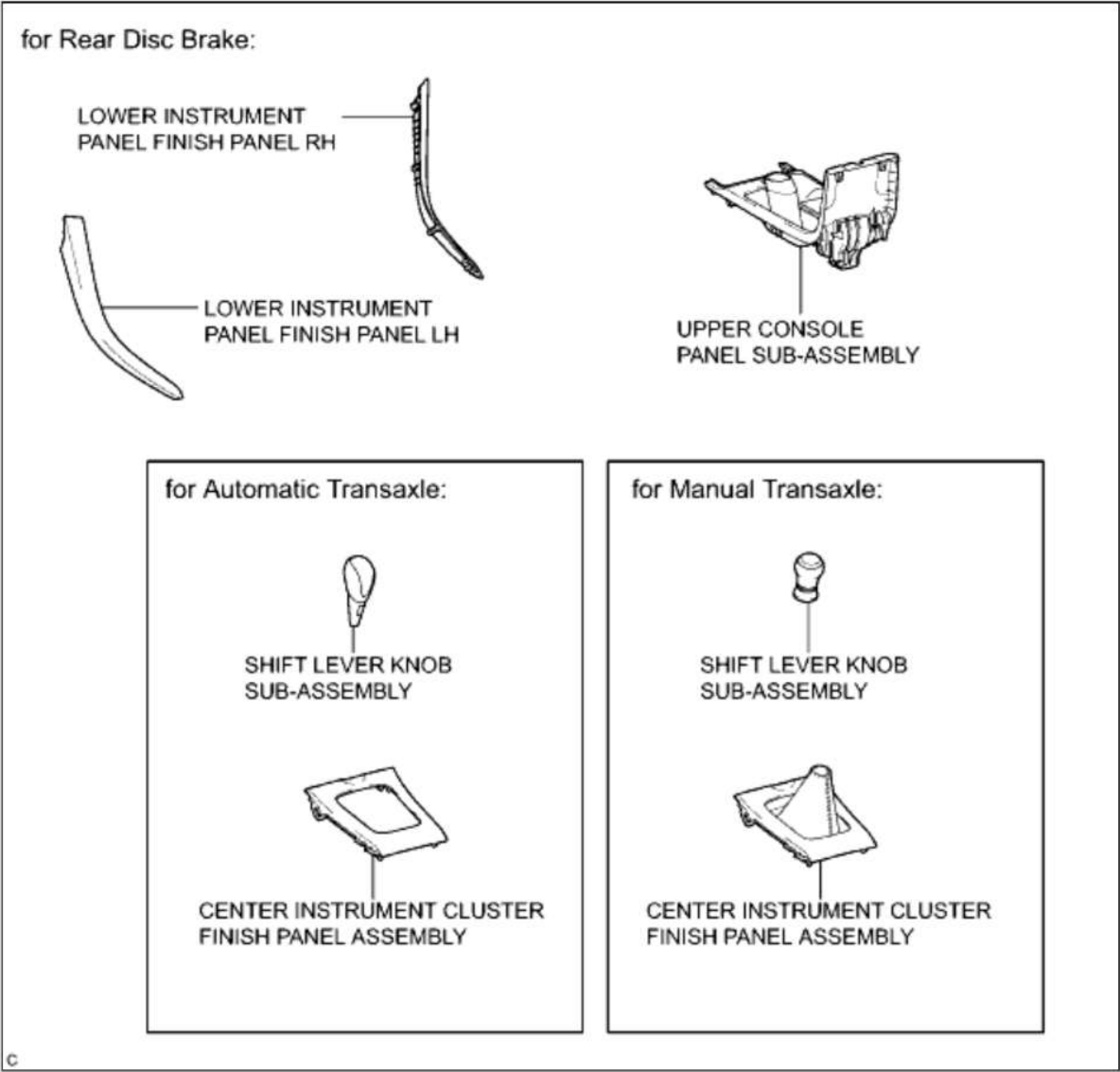
Torque: 103 N·m (1050 kgf·cm, 76ft·lbf)



Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001Y1Q011X
Title: AXLE AND DIFFERENTIAL: REAR AXLE HUB: COMPONENTS (2010 Corolla)		

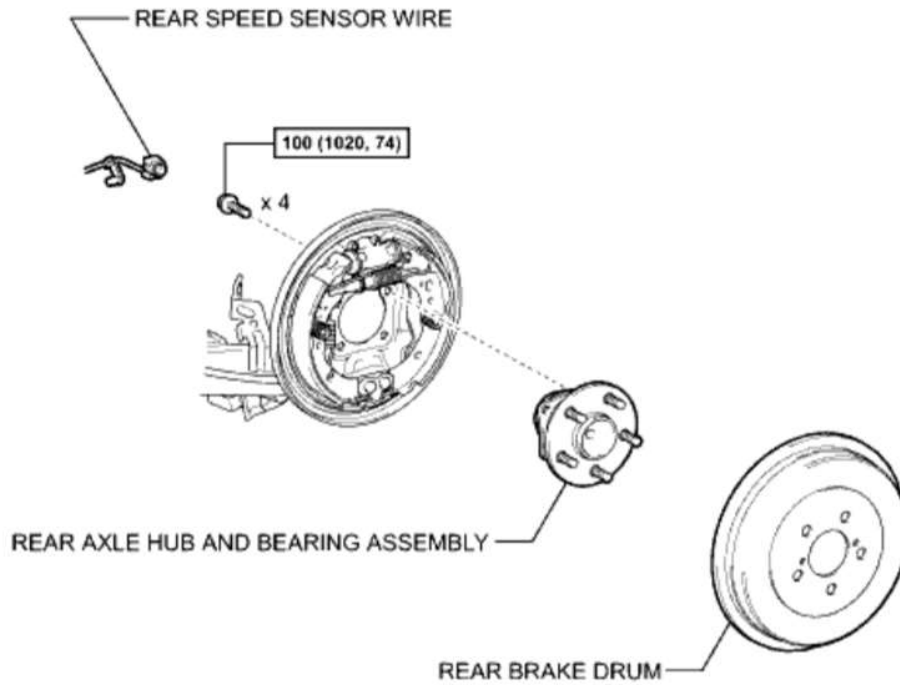
COMPONENTS

ILLUSTRATION



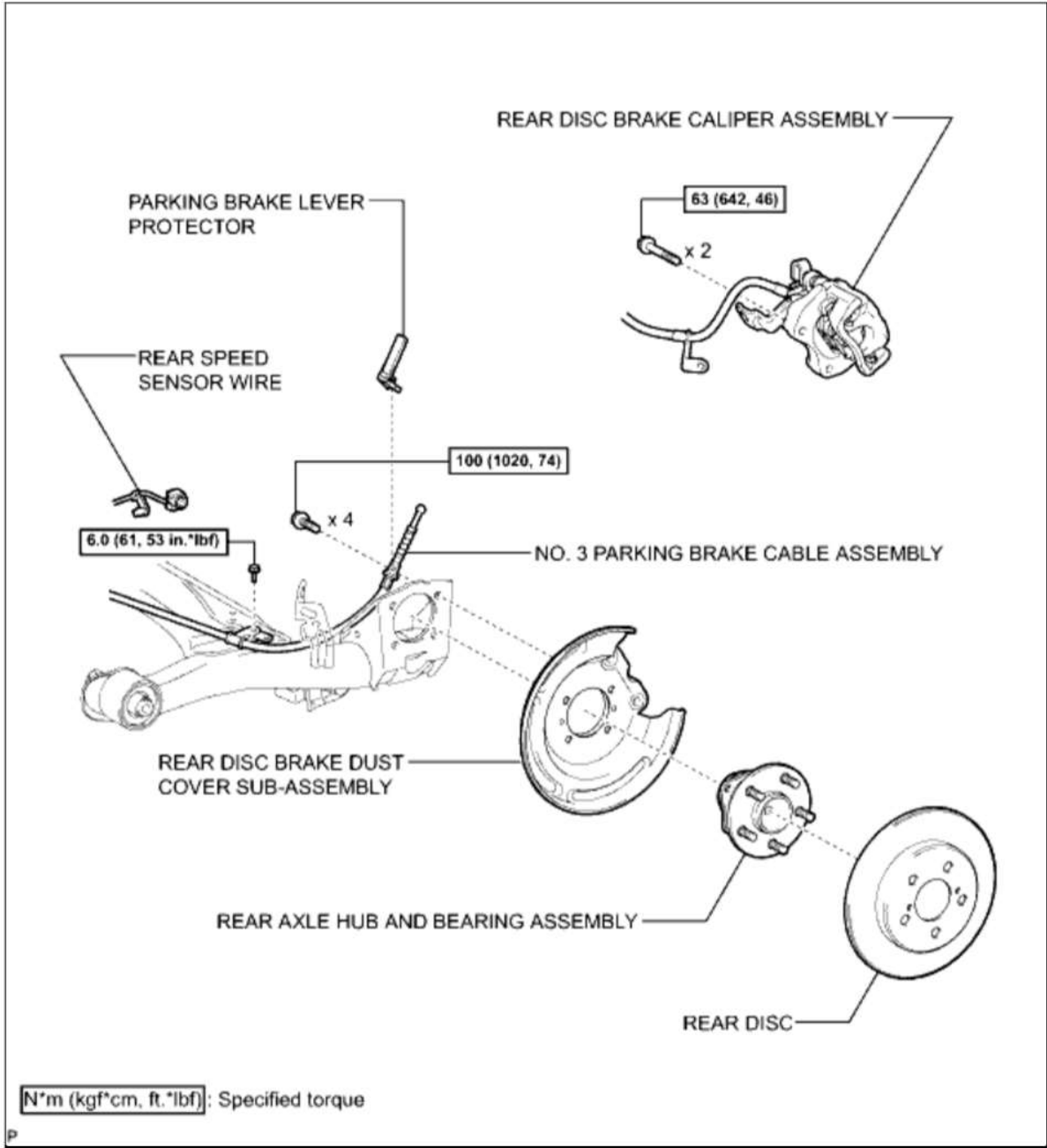
ILLUSTRATION

for Rear Drum Brake:



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

ILLUSTRATION



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Last Modified: 3-10-2010	6.4 G	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001Y1S011X
Title: AXLE AND DIFFERENTIAL: REAR AXLE HUB: ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

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 LOWER INSTRUMENT PANEL FINISH PANEL LH (for Rear Disc Brake)

3. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL RH (for Rear Disc Brake)

4. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Rear Disc Brake)

HINT:

- for Manual Transaxle 
- for Automatic Transaxle 

5. REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Rear Disc Brake)

HINT:

- for Manual Transaxle 
- for Automatic Transaxle 

6. REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY (for Rear Disc Brake)

7. LOOSEN PARKING BRAKE CABLE (for Rear Disc Brake)

8. REMOVE PARKING BRAKE LEVER PROTECTOR (for Rear Disc Brake)

9. SEPARATE NO. 3 PARKING BRAKE CABLE ASSEMBLY (for Rear Disc Brake)

10. SEPARATE REAR DISC BRAKE CALIPER ASSEMBLY (for Rear Disc Brake)

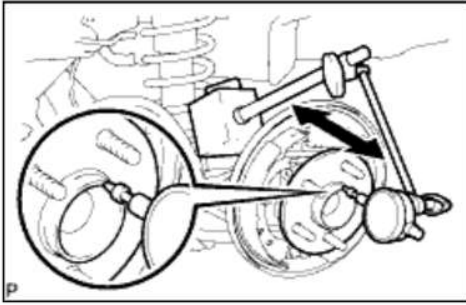
11. REMOVE REAR DISC (for Rear Disc Brake)

12. REMOVE REAR BRAKE DRUM (for Rear Drum Brake)

13. INSPECT REAR AXLE HUB BEARING LOOSENESS (for Rear Drum Brake)

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

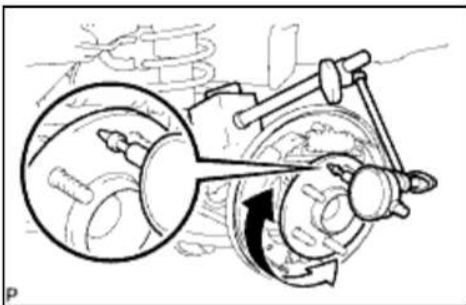
Maximum looseness:
0.05 mm (0.00196 in.)

**NOTICE:**

Ensure that the dial indicator is set perpendicular to the measurement surface.

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

14. INSPECT REAR AXLE HUB RUNOUT (for Rear Drum Brake)



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

Maximum runout:

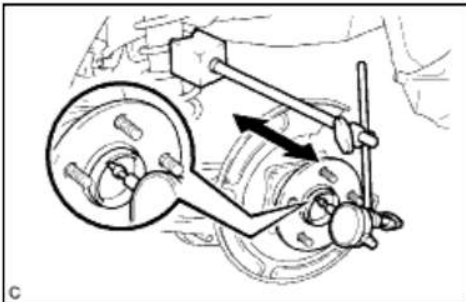
0.06 mm (0.00236 in.)

NOTICE:

Ensure that the dial indicator is set perpendicular to the measurement surface.

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

15. INSPECT REAR AXLE HUB BEARING LOOSENESS (for Rear Disc Brake)



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

Maximum looseness:

0.05 mm (0.00196 in.)

NOTICE:

Ensure that the dial indicator is set perpendicular to the measurement surface.

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

16. INSPECT REAR AXLE HUB RUNOUT (for Rear Disc Brake)

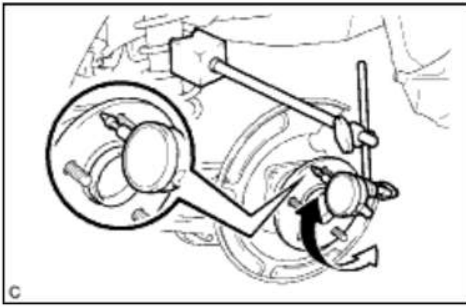
- (a) Using a dial indicator, check for runout on the surface of the axle hub outside the hub bolt.

Maximum runout:

0.06 mm (0.00236 in.)

NOTICE:

Ensure that the dial indicator is set perpendicular to the measurement surface.



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

17. INSTALL REAR BRAKE DRUM (for Rear Drum Brake) [INFO](#)

18. ADJUST REAR DRUM BRAKE SHOE CLEARANCE (for Rear Drum Brake) [INFO](#)

19. INSTALL REAR DISC (for Rear Disc Brake) [INFO](#)

20. INSTALL REAR DISC BRAKE CALIPER ASSEMBLY (for Rear Disc Brake) [INFO](#)

21. CONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY (for Rear Disc Brake) [INFO](#)

22. ADJUST PARKING BRAKE LEVER TRAVEL (for Rear Disc Brake) [INFO](#)

23. INSTALL PARKING BRAKE LEVER PROTECTOR [INFO](#)

24. INSPECT REAR DISC BRAKE CYLINDER OPERATION LEVER AND STOPPER CLEARANCE (for Rear Disc Brake) [INFO](#)

25. INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY (for Rear Disc Brake) [INFO](#)

26. INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Rear Disc Brake)

HINT:

- for Manual Transaxle [INFO](#)
- for Automatic Transaxle [INFO](#)

27. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Rear Disc Brake)

HINT:

- for Manual Transaxle [INFO](#)
- for Automatic Transaxle [INFO](#)

28. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL LH (for Rear Disc Brake) [INFO](#)

29. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL RH (for Rear Disc Brake) [INFO](#)

30. INSTALL REAR WHEEL

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



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001Y1R014X
Title: AXLE AND DIFFERENTIAL: REAR AXLE HUB: REMOVAL (2010 Corolla)		

REMOVAL

HINT:

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

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

2. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL LH (for Rear Disc Brake)

3. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL RH (for Rear Disc Brake)

4. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Rear Disc Brake)

HINT:

- for Manual Transaxle 
- for Automatic Transaxle 

5. REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Rear Disc Brake)

HINT:

- for Manual Transaxle 
- for Automatic Transaxle 

6. REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY (for Rear Disc Brake)

7. LOOSEN PARKING BRAKE CABLE (for Rear Disc Brake)

8. REMOVE REAR WHEEL

9. DISCONNECT REAR SPEED SENSOR WIRE (for Rear Drum Brake)

10. DISCONNECT REAR SPEED SENSOR WIRE (for Rear Disc Brake)

11. REMOVE PARKING BRAKE LEVER PROTECTOR (for Rear Disc Brake)

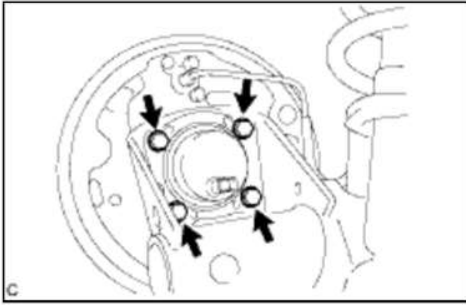
12. SEPARATE NO. 3 PARKING BRAKE CABLE ASSEMBLY (for Rear Disc Brake)

13. SEPARATE REAR DISC BRAKE CALIPER ASSEMBLY (for Rear Disc Brake)

14. REMOVE REAR DISC (for Rear Disc Brake)

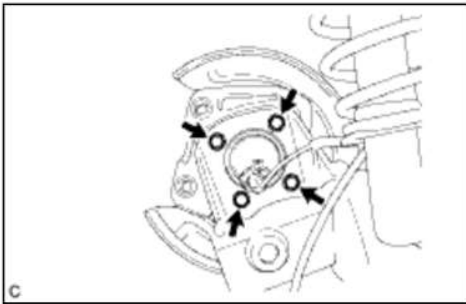
15. REMOVE REAR BRAKE DRUM (for Rear Drum Brake)

16. REMOVE REAR AXLE HUB AND BEARING ASSEMBLY (for Rear Drum Brake)



(a) Remove the 4 bolts and the rear axle hub and bearing assembly.

17. REMOVE REAR AXLE HUB AND BEARING ASSEMBLY (for Rear Disc Brake)



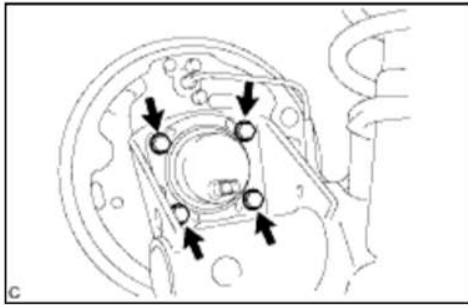
(a) Remove the 4 bolts and the rear axle hub and bearing assembly.



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001Y1P014X
Title: AXLE AND DIFFERENTIAL: REAR AXLE HUB: INSTALLATION (2010 Corolla)		

INSTALLATION

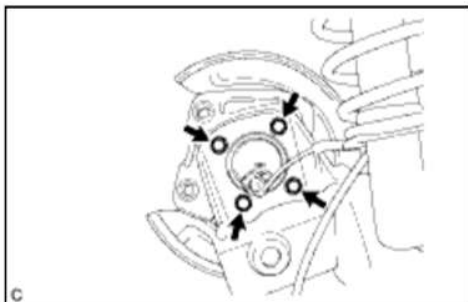
1. INSTALL REAR AXLE HUB AND BEARING ASSEMBLY (for Rear Drum Brake)



(a) Install the rear axle hub and bearing assembly with the 4 bolts.

Torque: 100 N·m (1020 kgf·cm, 74ft·lbf)

2. INSTALL REAR AXLE HUB AND BEARING ASSEMBLY (for Rear Disc Brake)



(a) Install the rear axle hub and bearing assembly with the 4 bolts.

Torque: 100 N·m (1020 kgf·cm, 74ft·lbf)

3. INSPECT REAR AXLE HUB BEARING LOOSENESS (for Rear Drum Brake) INFO

4. INSPECT REAR AXLE HUB RUNOUT (for Rear Drum Brake) INFO

5. INSTALL REAR AXLE HUB BEARING LOOSENESS (for Rear Disc Brake) INFO

6. INSTALL REAR AXLE HUB RUNOUT (for Rear Disc Brake) INFO

7. INSTALL REAR BRAKE DRUM (for Rear Drum Brake) INFO

8. ADJUST REAR DRUM BRAKE SHOE CLEARANCE (for Rear Drum Brake) INFO

9. INSTALL REAR DISC (for Rear Disc Brake) INFO

10. INSTALL REAR DISC BRAKE CALIPER ASSEMBLY (for Rear Disc Brake) INFO

11. CONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY (for Rear Disc Brake) INFO

12. ADJUST PARKING BRAKE LEVER TRAVEL (for Rear Disc Brake) **13. INSPECT REAR DISC BRAKE CYLINDER OPERATION LEVER AND STOPPER CLEARANCE (for Rear Disc Brake)** **14. INSTALL PARKING BRAKE LEVER PROTECTOR (for Rear Disc Brake)** **15. INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY (for Rear Disc Brake)** **16. INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Rear Disc Brake)****HINT:**

- for Manual Transaxle 
- for Automatic Transaxle 

17. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Rear Disc Brake)**HINT:**

- for Manual Transaxle 
- for Automatic Transaxle 

18. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL LH (for Rear Disc Brake) **19. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL RH (for Rear Disc Brake)** **20. CONNECT REAR SPEED SENSOR WIRE (for Rear Drum Brake)** **21. CONNECT REAR SPEED SENSOR WIRE (for Rear Disc Brake)** **22. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL****23. INSTALL REAR WHEEL**

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

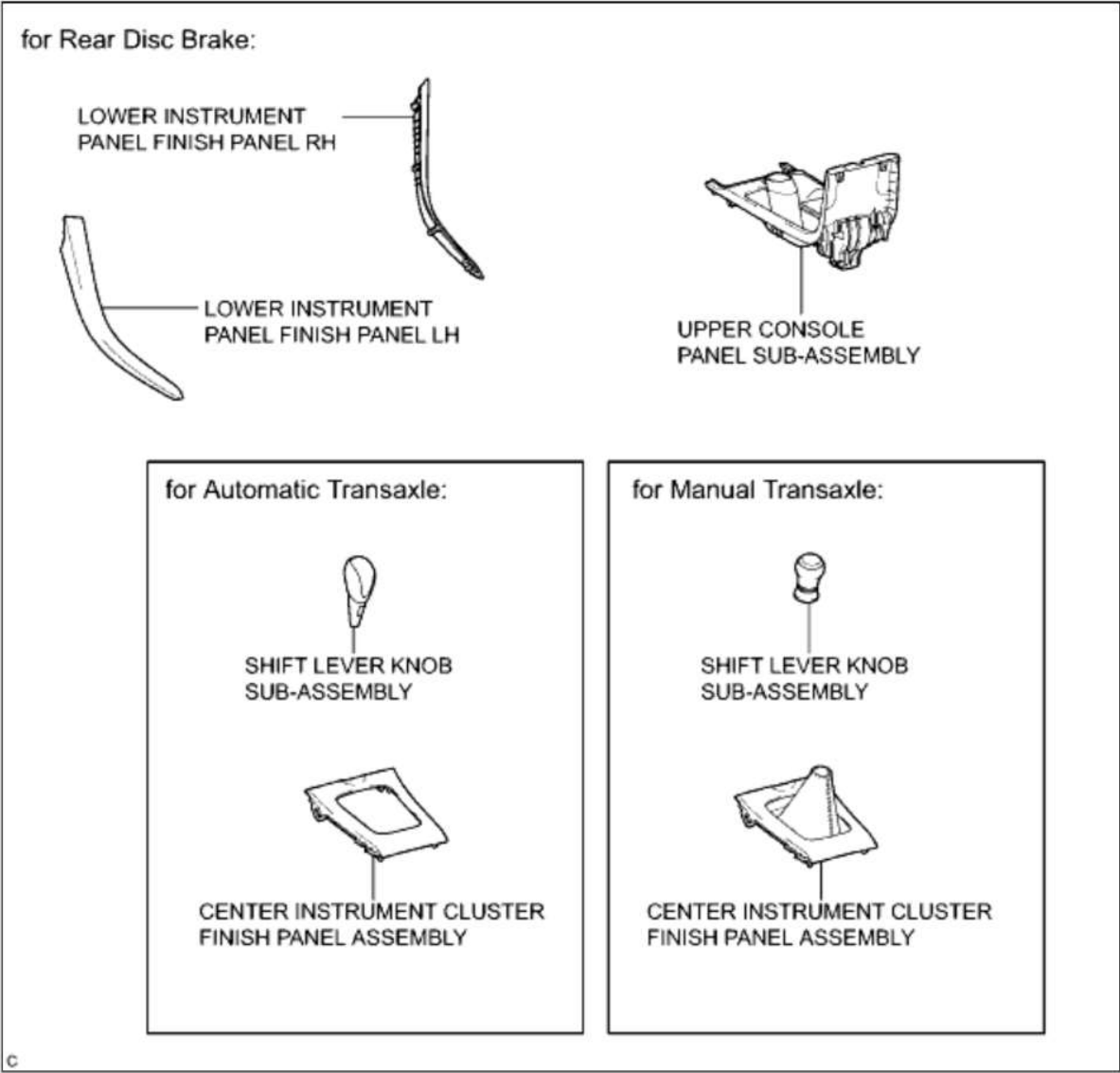
24. INSPECT REAR WHEEL ALIGNMENT**HINT:** **25. CHECK FOR SPEED SENSOR SIGNAL (w/ ABS)****HINT:** **26. CHECK FOR SPEED SENSOR SIGNAL (w/ VSC)****HINT:** 

TOYOTA

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Model Year: 2010	Model: Corolla	Doc ID: RM000001Y1U00YX
Title: AXLE AND DIFFERENTIAL: REAR AXLE HUB BOLT: COMPONENTS (2010 Corolla)		

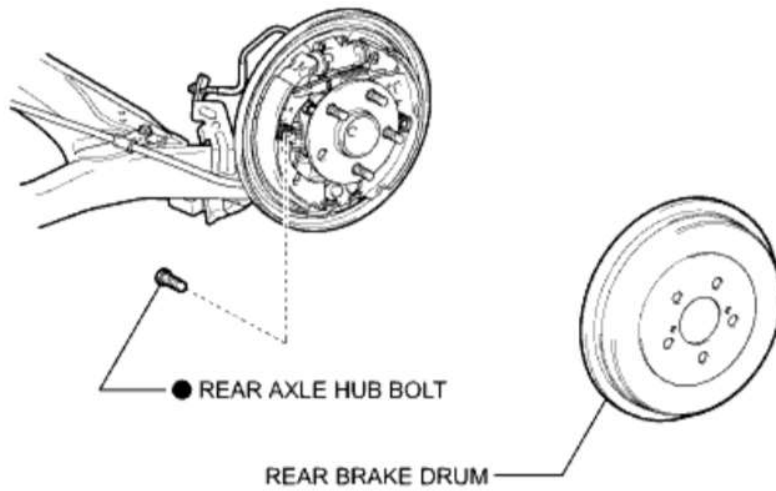
COMPONENTS

ILLUSTRATION



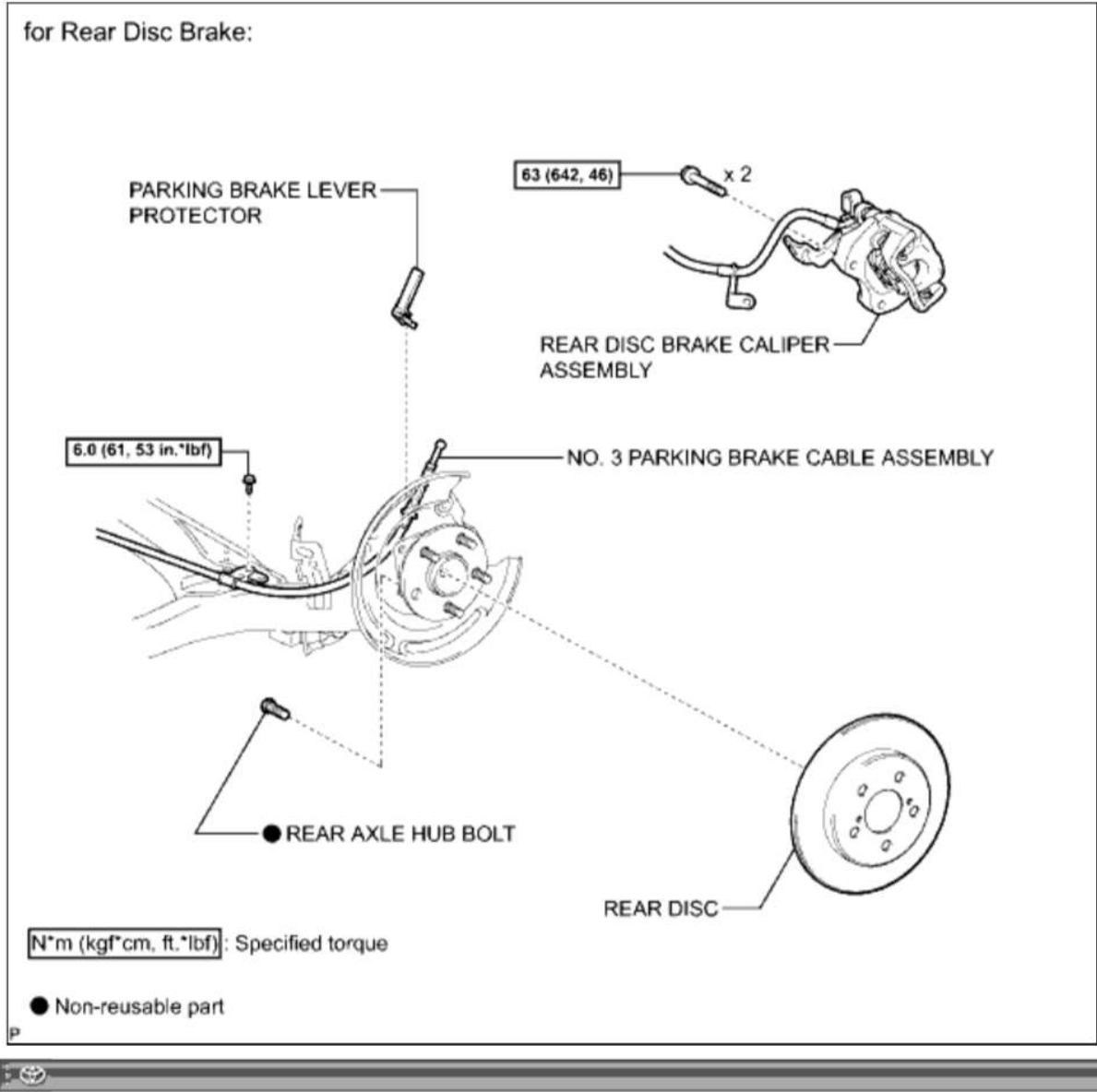
ILLUSTRATION

for Rear Drum Brake:



● Non-reusable part

ILLUSTRATION



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM0000024EC010X
Title: AXLE AND DIFFERENTIAL: REAR AXLE HUB BOLT: REPLACEMENT (2010 Corolla)		

REPLACEMENT

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 LOWER INSTRUMENT PANEL FINISH PANEL LH (for Rear Disc Brake)

3. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL RH (for Rear Disc Brake)

4. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Rear Disc Brake)

HINT:

- for Manual Transaxle 
- for Automatic Transaxle 

5. REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Rear Disc Brake)

HINT:

- for Manual Transaxle 
- for Automatic Transaxle 

6. REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY (for Rear Disc Brake)

7. LOOSEN PARKING BRAKE CABLE (for Rear Disc Brake)

8. REMOVE PARKING BRAKE LEVER PROTECTOR (for Rear Disc Brake)

9. SEPARATE NO. 3 PARKING BRAKE CABLE ASSEMBLY (for Rear Disc Brake)

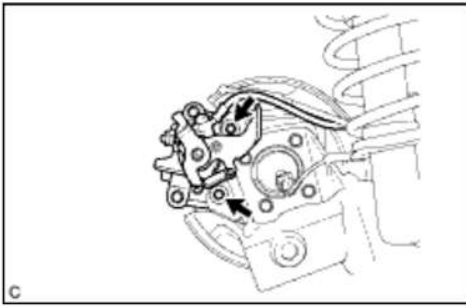
10. REMOVE REAR BRAKE DRUM (for Rear Drum Brake)

11. SEPARATE REAR DISC BRAKE CALIPER ASSEMBLY (for Rear Disc Brake)

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

NOTICE:

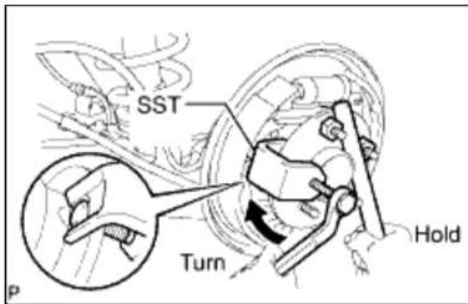
Use wire or an equivalent tool to keep the brake caliper from hanging down by the flexible hose.



12. REMOVE REAR DISC (for Rear Disc Brake) INFO

13. REMOVE REAR AXLE HUB BOLT (for Rear Drum Brake)

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

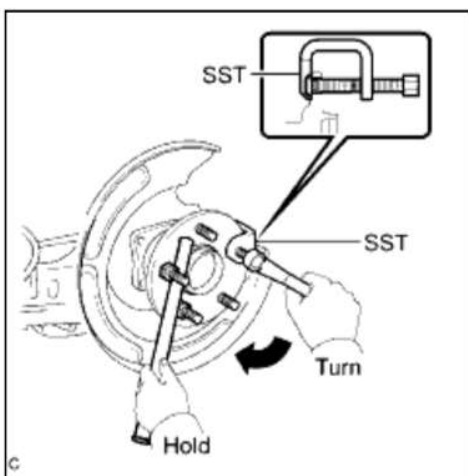


(b) Using SST and a brass bar or an equivalent tool to hold the hub and bearing assembly, remove the rear axle hub bolt.

SST: 09611-12010

14. REMOVE REAR AXLE HUB BOLT (for Rear Disc Brake)

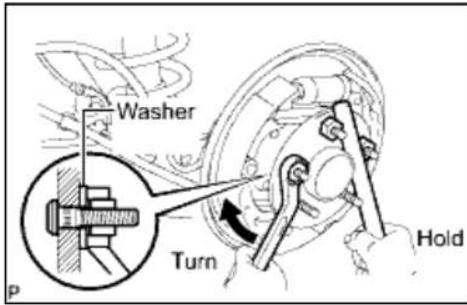
(a) Temporarily install the 2 nuts and 2 washers to the rear axle hub bolt as shown in the illustration.



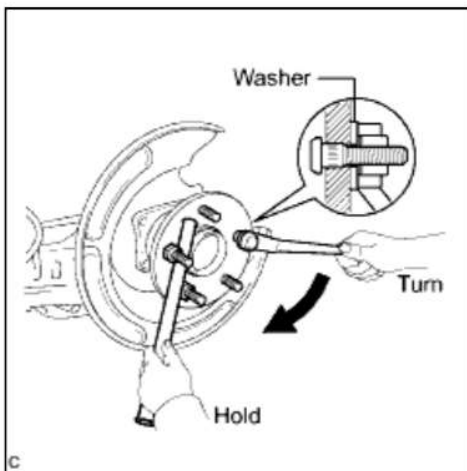
(b) Using SST and a brass bar or an equivalent tool to hold the hub and bearing assembly, remove the rear axle hub bolt.

SST: 09628-10011

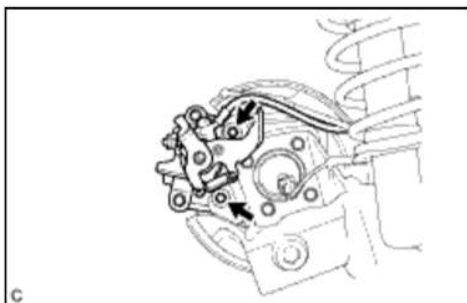
15. INSTALL REAR AXLE HUB BOLT (for Rear Drum

**Brake)**

- (a) Install a washer and nut to a new rear axle hub bolt as shown in the illustration.
- (b) Using a brass bar or an equivalent tool to hold the hub and bearing assembly, install the rear axle hub bolt by tightening the nut.

**16. INSTALL REAR AXLE HUB BOLT (for Rear Disc Brake)**

- (a) Install a washer and nut to a new rear axle hub bolt as shown in the illustration.
- (b) Using a brass bar or an equivalent tool to hold the hub and bearing assembly, install the rear axle hub bolt by tightening the nut.

17. INSTALL REAR BRAKE DRUM (for Rear Drum Brake) INFO**18. ADJUST REAR DRUM BRAKE SHOE CLEARANCE (for Rear Drum Brake)** INFO**19. INSTALL REAR DISC (for Rear Disc Brake)** INFO**20. INSTALL REAR DISC BRAKE CALIPER ASSEMBLY (for Rear Disc Brake)**

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

Torque: 63 N·m (642 kgf·cm, 46ft·lbf)

21. CONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY (for Rear Disc Brake) INFO**22. ADJUST PARKING BRAKE LEVER TRAVEL (for Rear Disc Brake)** INFO

23. INSPECT REAR DISC BRAKE CYLINDER OPERATION LEVER AND STOPPER CLEARANCE (for Rear Disc Brake) **24. INSTALL PARKING BRAKE LEVER PROTECTOR (for Rear Disc Brake)** **25. INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY (for Rear Disc Brake)** **26. INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Rear Disc Brake)****HINT:**

- for Manual Transaxle 
- for Automatic Transaxle 

27. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Rear Disc Brake)**HINT:**

- for Manual Transaxle 
- for Automatic Transaxle 

28. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL LH (for Rear Disc Brake) **29. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL RH (for Rear Disc Brake)** **30. INSTALL REAR WHEEL**

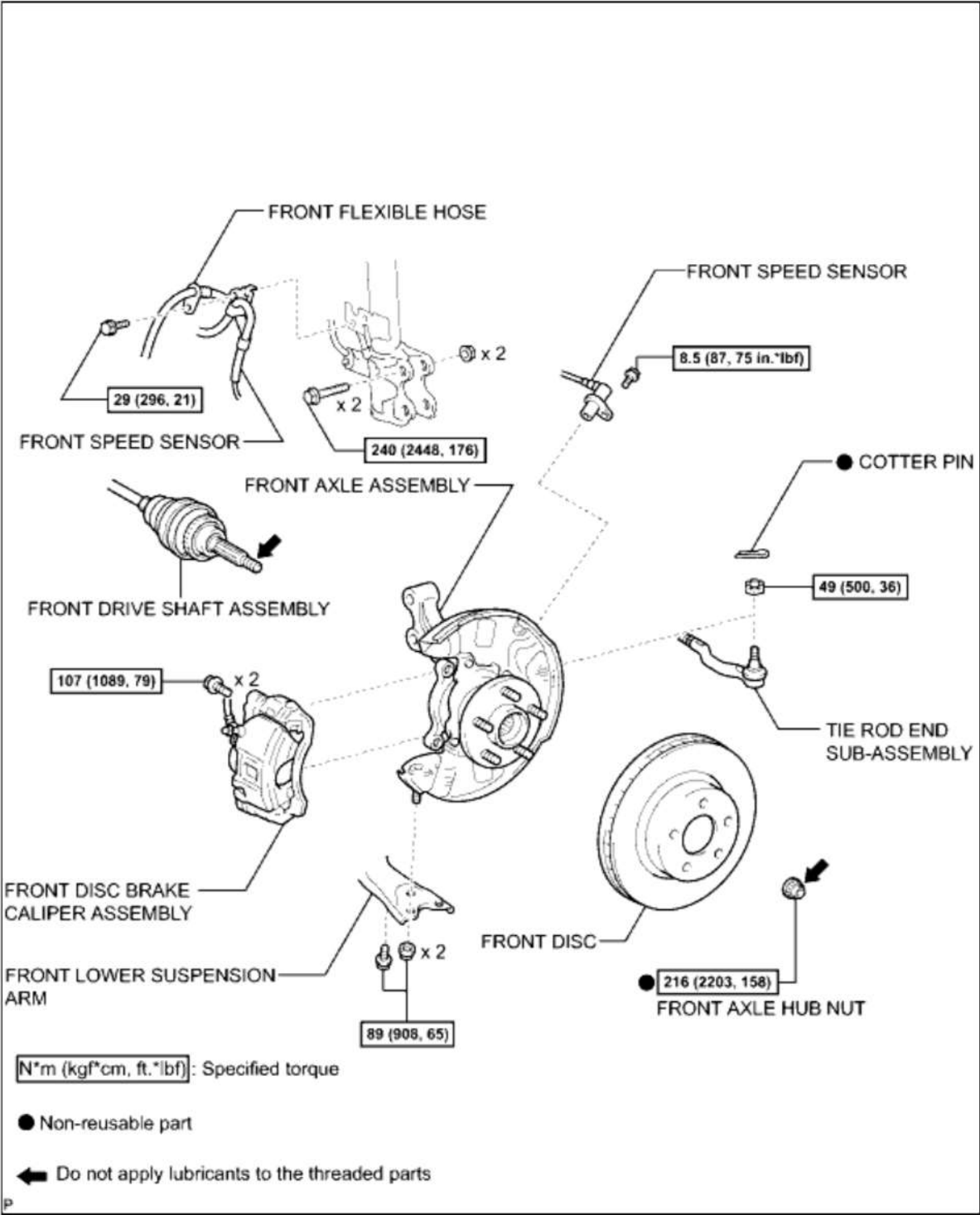
Torque: 103 N·m (1050 kgf·cm, 76ft·lbf)



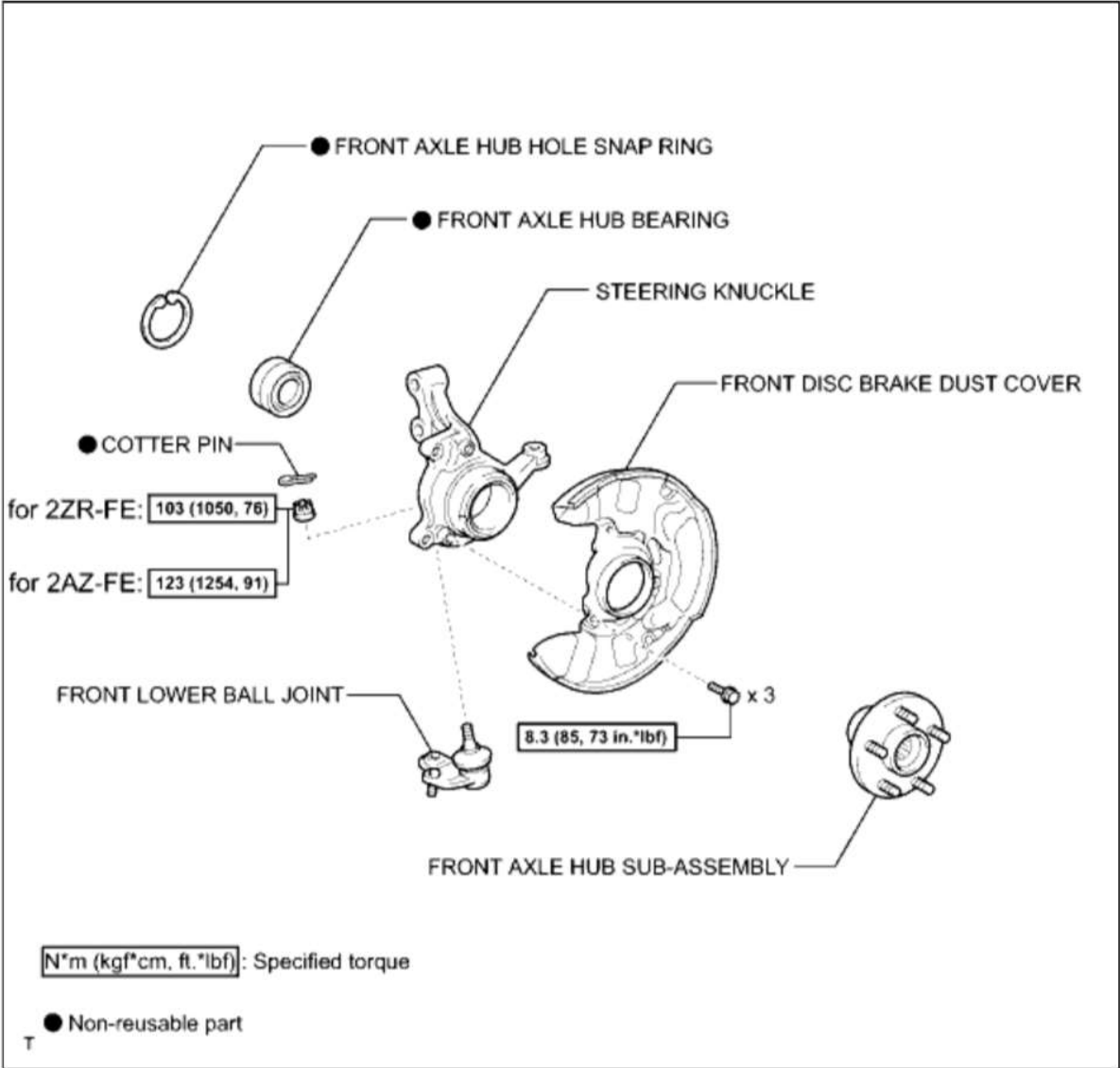
Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001IWY01NX
Title: AXLE AND DIFFERENTIAL: STEERING KNUCKLE: COMPONENTS (2010 Corolla)		

COMPONENTS

ILLUSTRATION



ILLUSTRATION



cardiagn.com

Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001IWZ023X
Title: AXLE AND DIFFERENTIAL: STEERING KNUCKLE: REMOVAL (2010 Corolla)		

REMOVAL

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 HUB NUT (for 2AZ-FE) INFO

3. REMOVE FRONT AXLE HUB NUT (for 2ZR-FE) INFO

4. SEPARATE FRONT SPEED SENSOR (for TMC Made) INFO

5. SEPARATE FRONT SPEED SENSOR (except TMC Made) INFO

6. SEPARATE FRONT DISC BRAKE CALIPER ASSEMBLY INFO

7. REMOVE FRONT DISC INFO

8. SEPARATE TIE ROD END SUB-ASSEMBLY INFO

9. SEPARATE FRONT LOWER SUSPENSION ARM INFO

10. REMOVE FRONT AXLE ASSEMBLY INFO

11. REMOVE FRONT LOWER BALL JOINT INFO

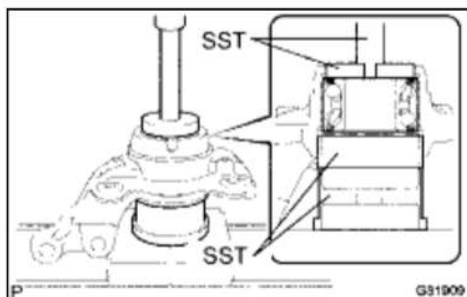
12. REMOVE FRONT AXLE HUB HOLE SNAP RING INFO

13. REMOVE FRONT AXLE HUB SUB-ASSEMBLY INFO

14. REMOVE FRONT DISC BRAKE DUST COVER INFO

15. REMOVE STEERING KNUCKLE

(a) Place the front axle hub bearing inner race (outside) on the front axle hub bearing.



(b) Using SST and a press, remove the front axle hub bearing from the steering knuckle.

SST: 09223-15020

SST: 09387-02010

SST: 09950-60010

09951-00640

SST: 09950-70010

09951-07100

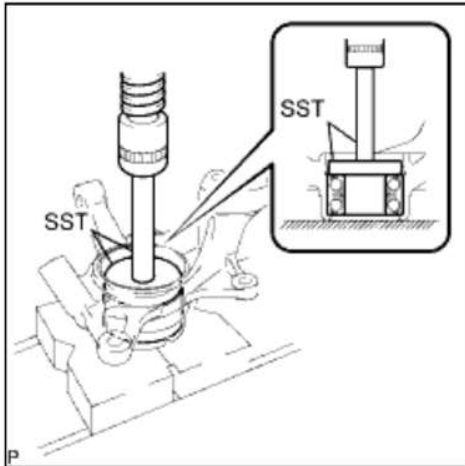


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Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001IWX023X
Title: AXLE AND DIFFERENTIAL: STEERING KNUCKLE: INSTALLATION (2010 Corolla)		

INSTALLATION

1. INSTALL STEERING KNUCKLE



(a) Using SST and a press, install a new front axle hub bearing to the steering knuckle.

SST: 09950-60020

09951-00720

SST: 09950-70010

09951-07100

2. INSTALL FRONT DISC BRAKE DUST COVER

3. INSTALL FRONT AXLE HUB SUB-ASSEMBLY

4. INSTALL FRONT AXLE HUB HOLE SNAP RING

5. INSTALL FRONT LOWER BALL JOINT

6. INSTALL FRONT AXLE ASSEMBLY

7. INSTALL FRONT LOWER SUSPENSION ARM

8. INSTALL TIE ROD END SUB-ASSEMBLY

9. INSTALL FRONT DISC

10. INSTALL FRONT DISC BRAKE CALIPER ASSEMBLY

11. INSTALL FRONT AXLE HUB NUT

12. SEPARATE FRONT DISC BRAKE CALIPER ASSEMBLY

13. REMOVE FRONT DISC

14. INSPECT FRONT AXLE HUB BEARING LOOSENESS

15. INSPECT FRONT AXLE HUB RUNOUT

16. INSTALL FRONT DISC **17. INSTALL FRONT DISC BRAKE CALIPER ASSEMBLY** **18. CONNECT FRONT SPEED SENSOR (for TMC Made)** **19. CONNECT FRONT SPEED SENSOR (except TMC Made)** **20. INSTALL FRONT AXLE HUB NUT** **21. INSTALL FRONT WHEEL**

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

22. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

HINT: 

23. CHECK FOR SPEED SENSOR SIGNAL

HINT: 

