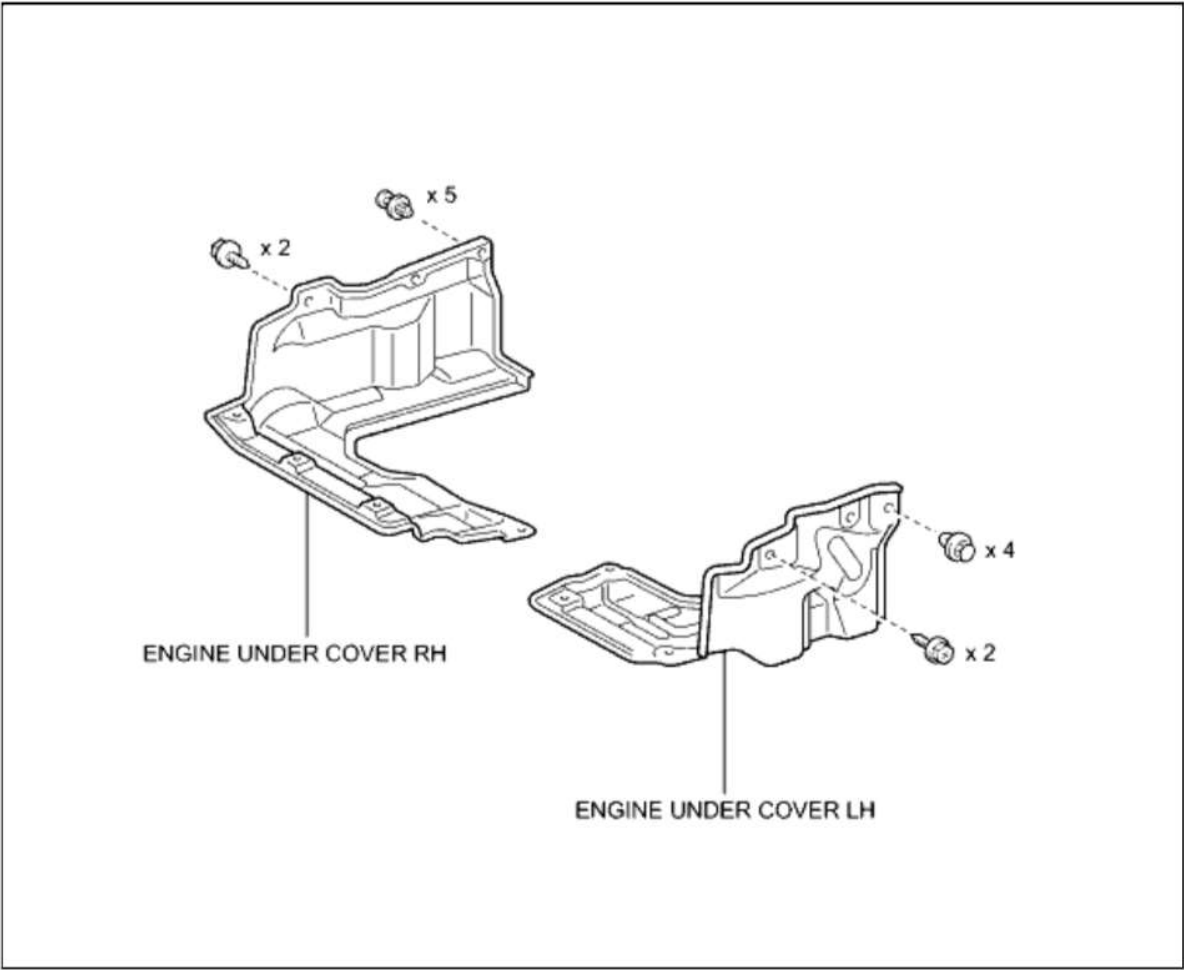


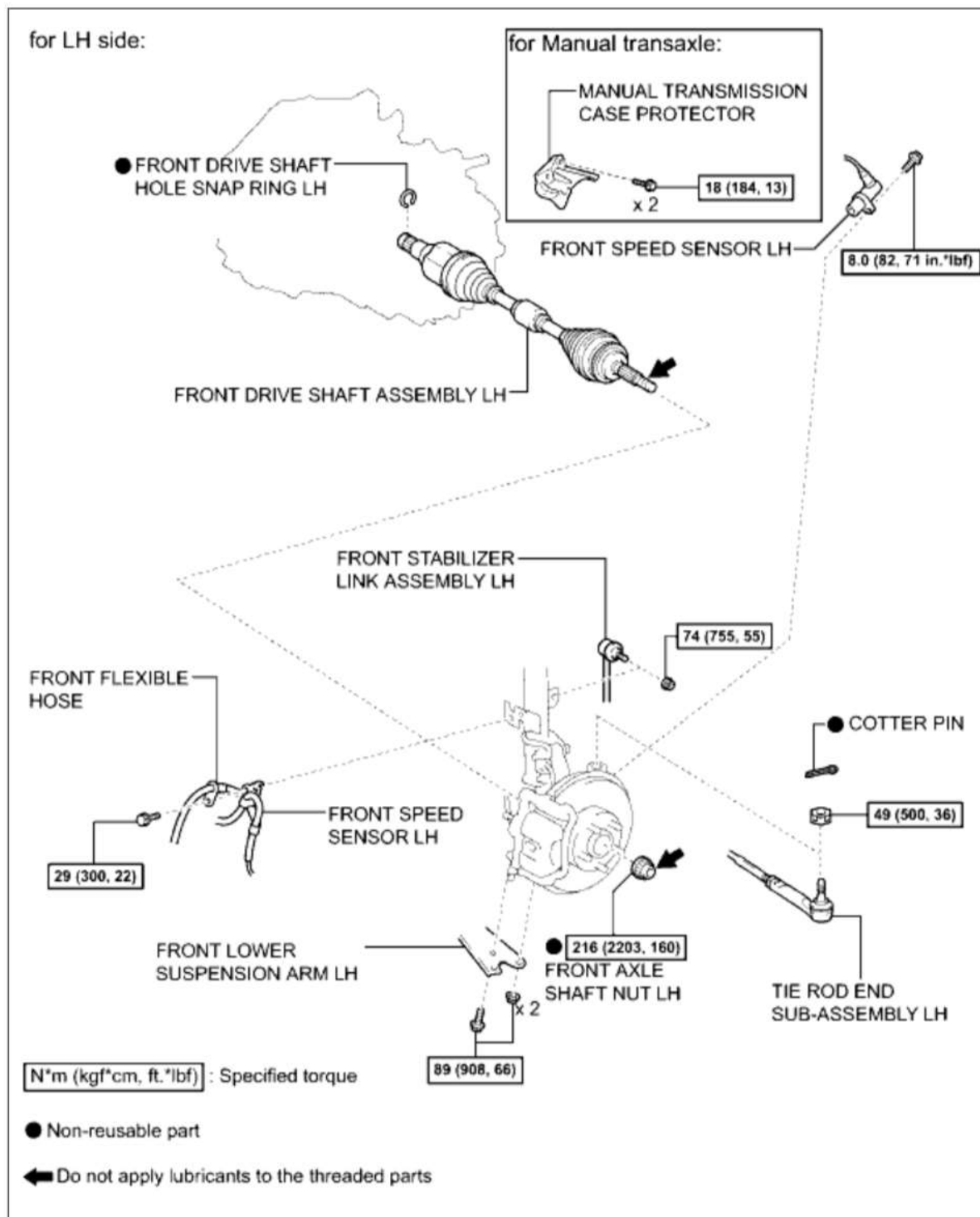
Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000003CY2006X
Title: DRIVE SHAFT / PROPELLER SHAFT: FRONT DRIVE SHAFT ASSEMBLY (for 2AZ-FE): COMPONENTS (2010 Corolla)		

COMPONENTS

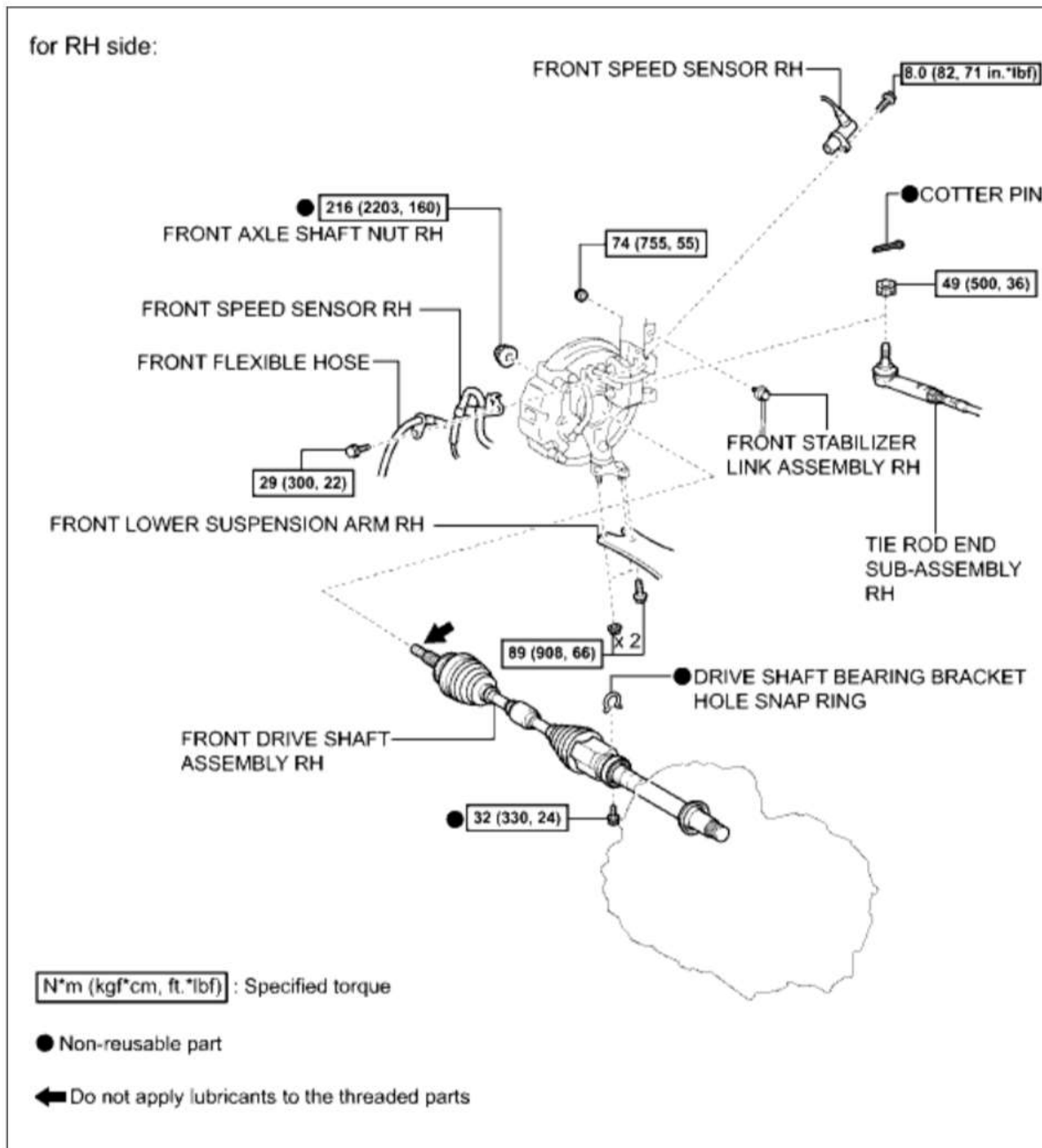
ILLUSTRATION



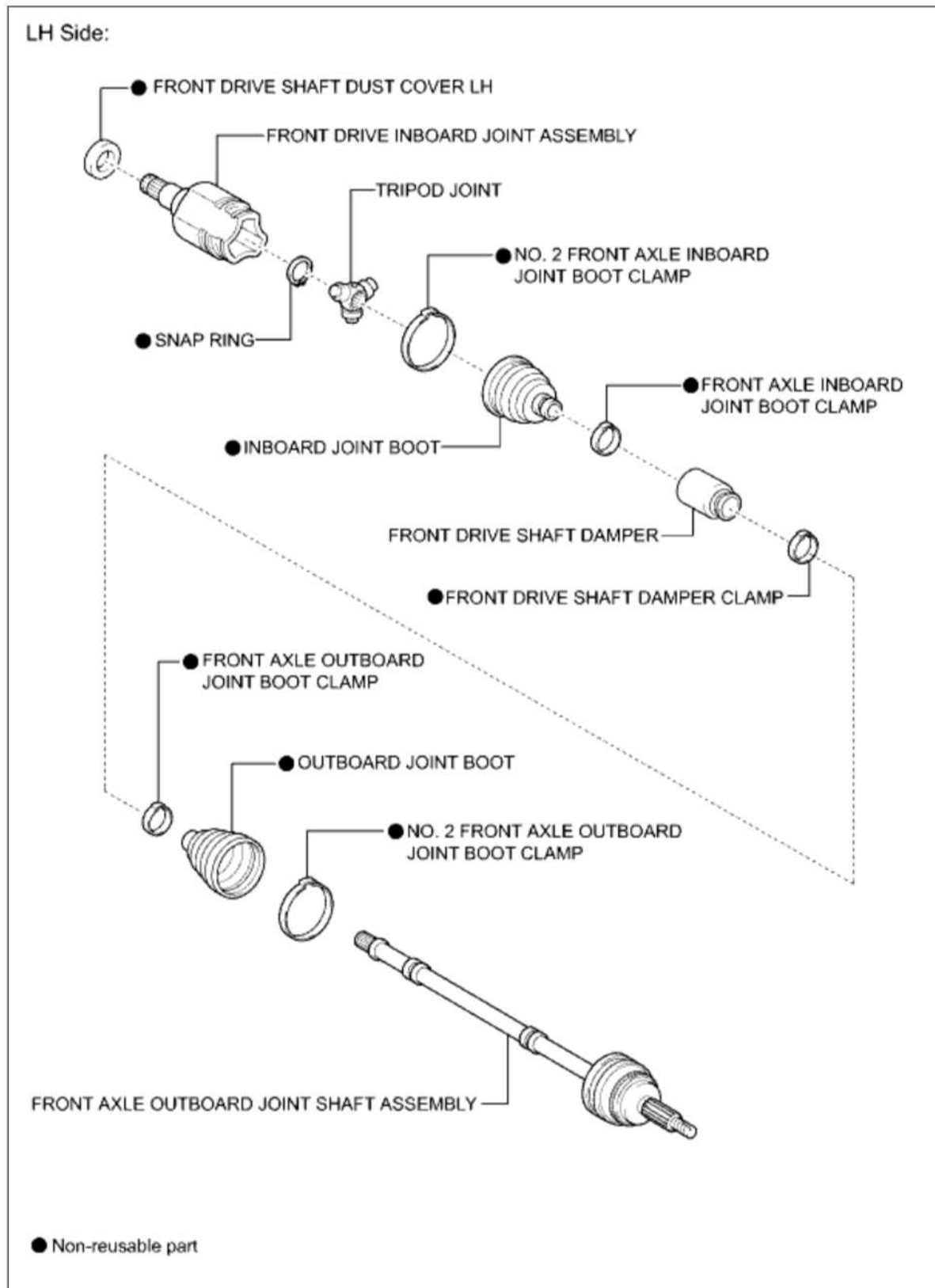
ILLUSTRATION



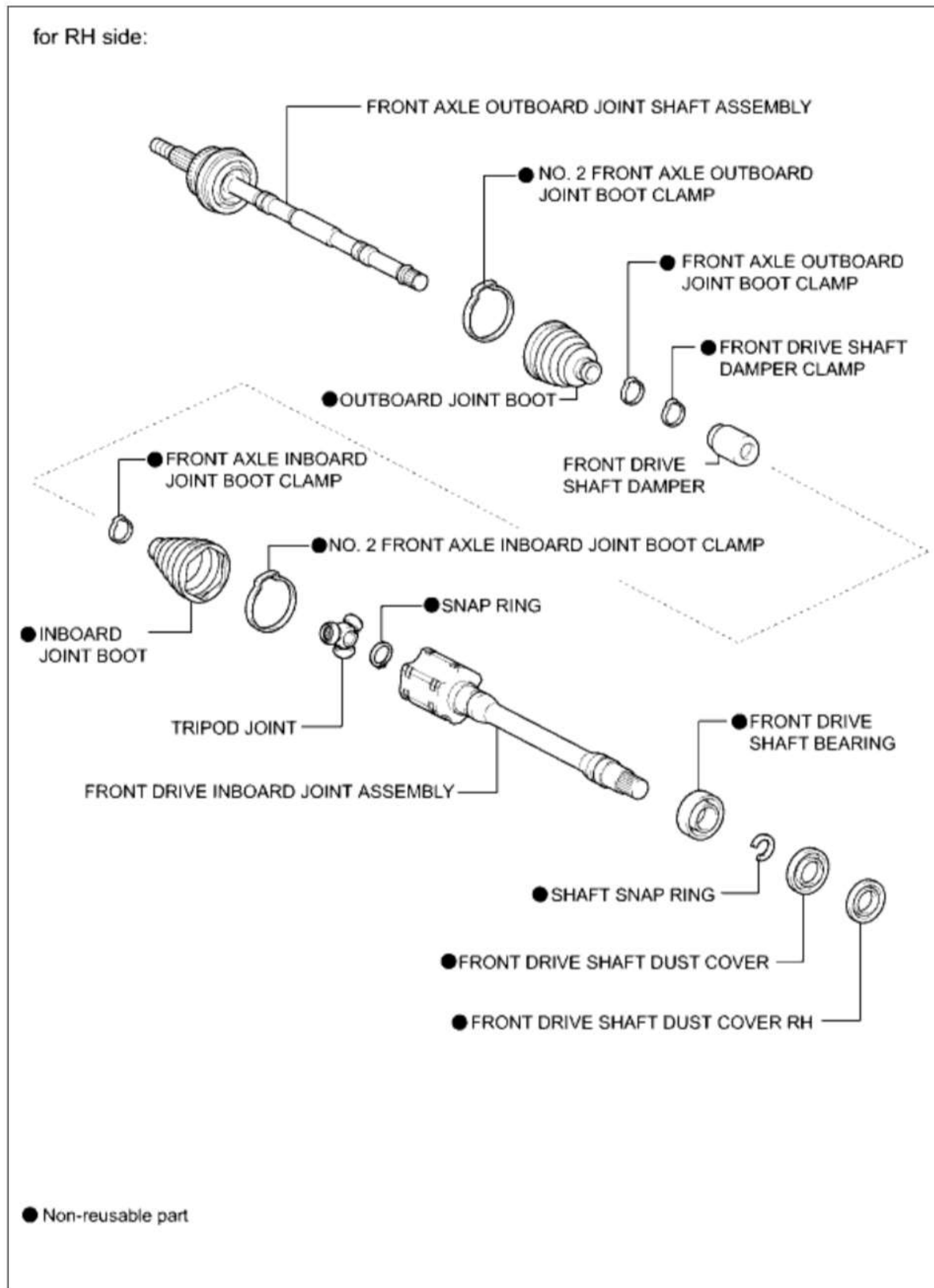
ILLUSTRATION



ILLUSTRATION



ILLUSTRATION



Last Modified: 3-10-2010	6.4 T	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000002YRL00GX
Title: DRIVE SHAFT / PROPELLER SHAFT: DRIVE SHAFT SYSTEM: PROBLEM SYMPTOMS TABLE (2010 Corolla)		

PROBLEM SYMPTOMS TABLE

HINT:

Use the table below to help determine the cause of the 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.

FRONT DRIVE SHAFT

SYMPTOM	SUSPECTED AREA	SEE PAGE
Front wheel shimmy	Front drive shaft (worn) (for 2AZ-FE)	INFO
	Front drive shaft (worn) (for 2ZR-FE)	INFO



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001HAY01JX
Title: DRIVE SHAFT / PROPELLER SHAFT: FRONT DRIVE SHAFT ASSEMBLY (for 2AZ-FE): REMOVAL (2010 Corolla)		

REMOVAL

1. REMOVE ENGINE UNDER COVER LH

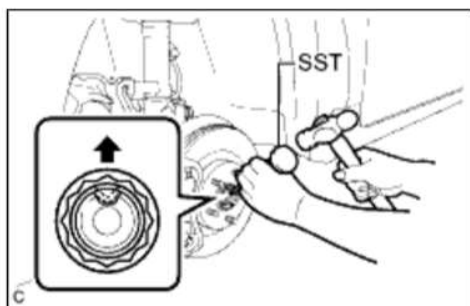
2. REMOVE ENGINE UNDER COVER RH

3. DRAIN MANUAL TRANSAXLE OIL (for Manual Transaxle) [INFO](#)

4. DRAIN AUTOMATIC TRANSAXLE FLUID (for Automatic Transaxle) [INFO](#)

5. REMOVE FRONT WHEELS

6. REMOVE FRONT AXLE SHAFT NUT LH



(a) Using SST and a hammer, release the staked part of the front axle shaft nut LH.

SST: 09930-00010

NOTICE:

- Insert SST into the groove with the flat surface facing up.
- Do not damage the tip of SST using grinders.
- Completely unstake the staked part before removing the axle hub nut.
- Do not damage the threads of the drive shaft.

(b) Using a socket wrench (30 mm), remove the front axle shaft nut LH.

7. REMOVE FRONT AXLE SHAFT NUT RH

HINT:

Perform the same procedure as for the LH side.

8. SEPARATE FRONT SPEED SENSOR LH (for TMC Made) [INFO](#)

9. SEPARATE FRONT SPEED SENSOR RH (for TMC Made)

HINT:

Perform the same procedure as for the LH side.

10. SEPARATE FRONT SPEED SENSOR LH (except TMC Made) [INFO](#)

11. SEPARATE FRONT SPEED SENSOR RH (except TMC Made)

HINT:

Perform the same procedure as for the LH side.

12. SEPARATE FRONT STABILIZER LINK ASSEMBLY LH INFO**13. SEPARATE FRONT STABILIZER LINK ASSEMBLY RH****HINT:**

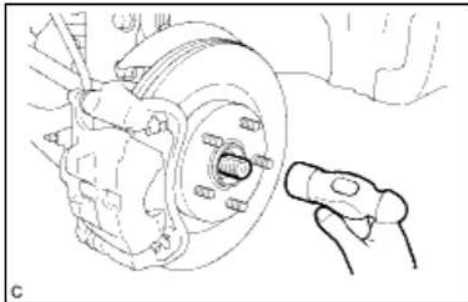
Perform the same procedure as for the LH side.

14. SEPARATE TIE ROD END SUB-ASSEMBLY LH INFO**15. SEPARATE TIE ROD END SUB-ASSEMBLY RH****HINT:**

Perform the same procedure as for the LH side.

16. SEPARATE FRONT LOWER SUSPENSION ARM LH INFO**17. SEPARATE FRONT LOWER SUSPENSION ARM RH****HINT:**

Perform the same procedure as for the LH side.

18. SEPARATE FRONT AXLE ASSEMBLY LH

- (a) Using a plastic hammer, tap the end of the drive shaft and disengage the fitting between the drive shaft and front axle assembly LH.

HINT:

If it is difficult to disengage the fitting, tap the end of the drive shaft with a brass bar and hammer.

- (b) Push the front axle assembly LH out of the vehicle to remove the drive shaft from the front axle assembly LH.

NOTICE:

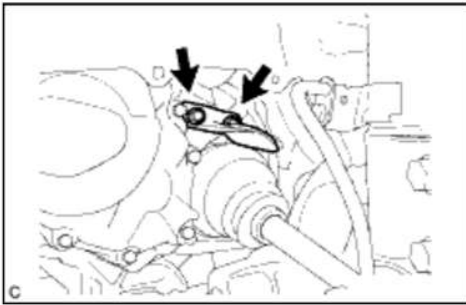
- Do not push out the front axle further than necessary.
- Do not damage the outboard joint boot.
- Do not damage the speed sensor rotor.

19. SEPARATE FRONT AXLE ASSEMBLY RH**HINT:**

Perform the same procedure as for the LH side.

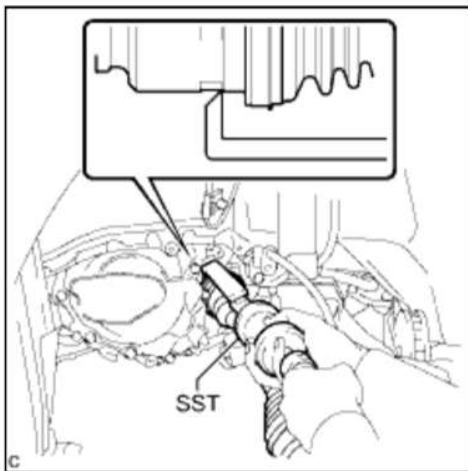
20. REMOVE MANUAL TRANSMISSION CASE PROTECTOR (for Manual Transaxle)

- (a) Remove the 2 bolts and the manual transmission case



protector.

21. REMOVE FRONT DRIVE SHAFT ASSEMBLY LH



(a) Using SST, remove the front drive shaft assembly LH.

SST: 09520-01010

SST: 09520-24010

09520-32040

NOTICE:

- Do not damage the oil seal.
- Do not damage the inboard joint boot.
- Do not drop the drive shaft.

22. REMOVE FRONT DRIVE SHAFT ASSEMBLY RH



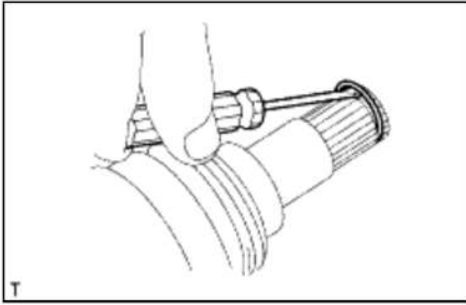
(a) Remove the bearing bracket hole snap ring.

(b) Remove the bolt and front drive shaft assembly RH from the drive shaft bearing bracket.

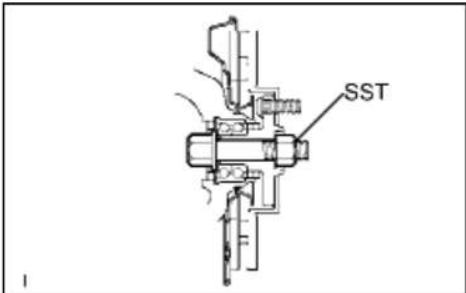
NOTICE:

Do not damage the boot or oil seal.

23. REMOVE FRONT DRIVE SHAFT HOLE SNAP RING LH (for LH Side)



(a) Using a screwdriver, remove the snap ring from the front drive inboard joint assembly.



24. FIX FRONT AXLE ASSEMBLY

SST: 09608-16042

09608-02021

09608-02041

NOTICE:

The hub bearing could be damaged if it is subjected to the vehicle weight, such as when moving the vehicle with the drive shaft removed. Therefore, make sure to support the hub bearing with SST when the vehicle weight is applied.

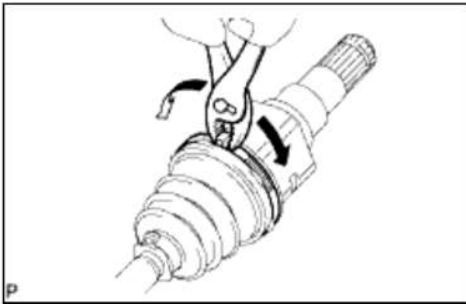


TOYOTA

Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001HAZ01EX
Title: DRIVE SHAFT / PROPELLER SHAFT: FRONT DRIVE SHAFT ASSEMBLY (for 2AZ-FE): DISASSEMBLY (2010 Corolla)		

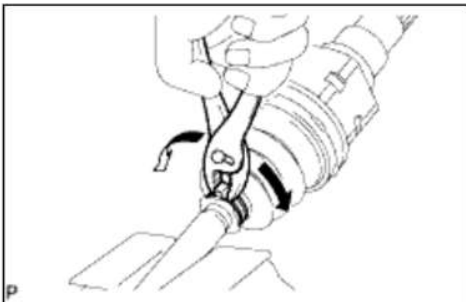
DISASSEMBLY

1. REMOVE NO. 2 FRONT AXLE INBOARD JOINT BOOT CLAMP



(a) Using pliers, remove the boot clamp as shown in the illustration.

2. REMOVE FRONT AXLE INBOARD JOINT BOOT CLAMP



(a) Using pliers, remove the boot clamp as shown in the illustration.

3. SEPARATE INBOARD JOINT BOOT

(a) Separate the inboard joint boot from the inboard joint.

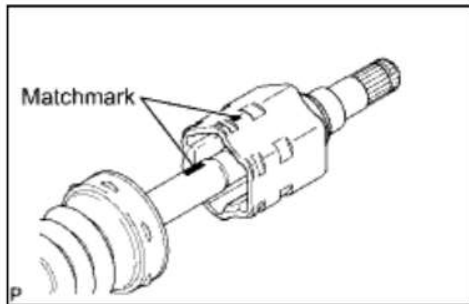
4. REMOVE FRONT DRIVE INBOARD JOINT ASSEMBLY

(a) Remove the old grease from the inboard joint.

(b) Place matchmarks on the inboard joint and outboard joint shaft.

NOTICE:

Do not damage any part when placing the marks.

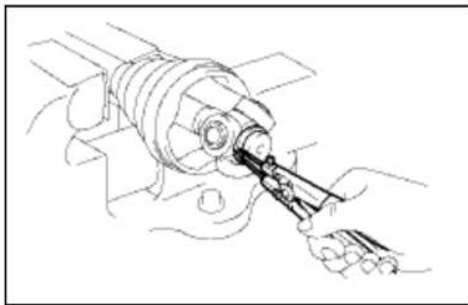


(c) Remove the inboard joint from the front axle outboard joint shaft assembly.

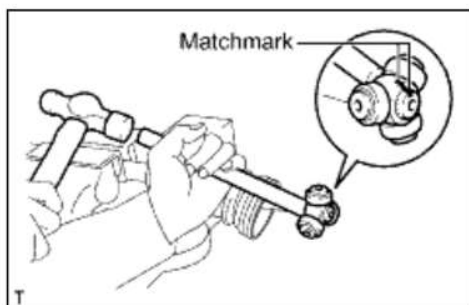
(d) Secure the outboard joint shaft in a vise using aluminum plates.

NOTICE:

Do not overtighten the vise.



(e) Using a snap ring expander, remove the snap ring from the front axle outboard joint shaft assembly.



(f) Place matchmarks on the tripod joint and outboard joint shaft.

NOTICE:

Do not damage any part when placing the marks.

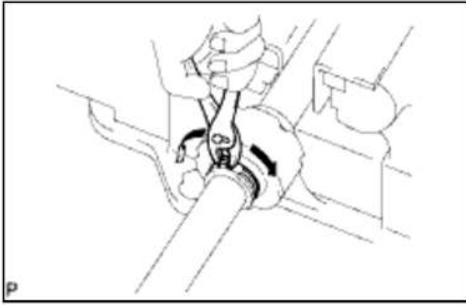
(g) Using a brass bar and hammer, remove the tripod joint from the front axle outboard joint shaft assembly.

NOTICE:

Do not tap the roller.

(h) Remove the No. 2 inboard joint boot clamp, the inboard joint boot and the inboard joint boot clamp.

5. REMOVE FRONT DRIVE SHAFT DAMPER CLAMP

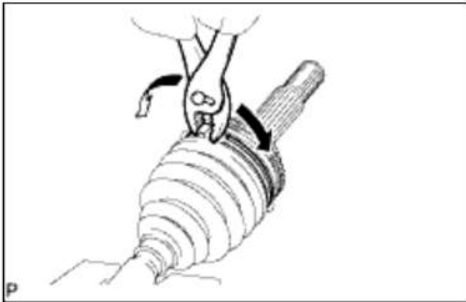


(a) Using pliers, remove the damper clamp as shown in the illustration.

6. REMOVE FRONT DRIVE SHAFT DAMPER

(a) Remove the drive shaft damper from the front axle outboard joint shaft assembly.

7. REMOVE NO. 2 FRONT AXLE OUTBOARD JOINT BOOT CLAMP



(a) Using pliers, remove the boot clamp as shown in the illustration.

8. REMOVE FRONT AXLE OUTBOARD JOINT BOOT CLAMP



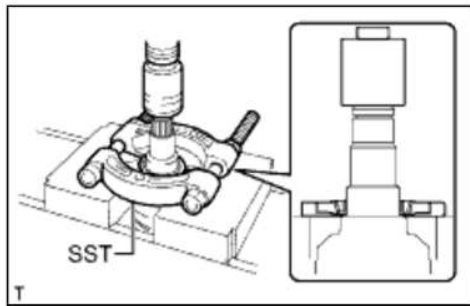
(a) Using pliers, remove the boot clamp as shown in the illustration.

9. REMOVE OUTBOARD JOINT BOOT

(a) Remove the outboard joint boot from the front axle outboard joint shaft assembly.

(b) Remove the old grease from the outboard joint.

10. REMOVE FRONT DRIVE SHAFT DUST COVER LH



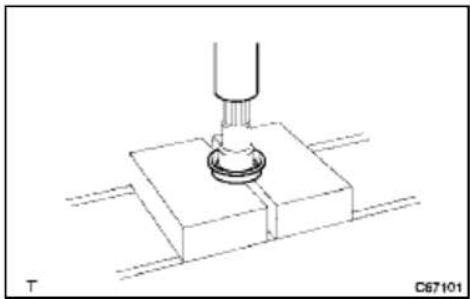
(a) Using SST and a press, remove the dust cover from the front drive inboard joint assembly.

SST: 09950-00020

NOTICE:

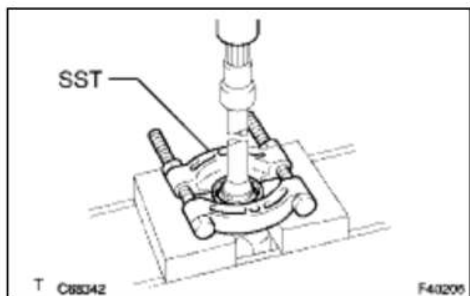
Do not drop the inboard joint.

11. REMOVE FRONT DRIVE SHAFT DUST COVER RH



(a) Using a press, remove the drive shaft dust cover RH.

12. REMOVE FRONT DRIVE SHAFT DUST COVER

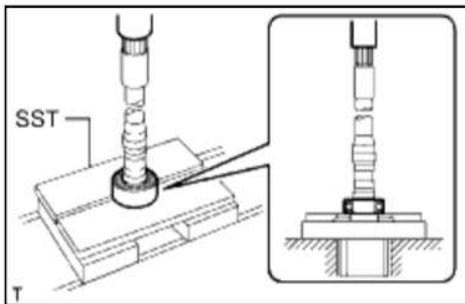
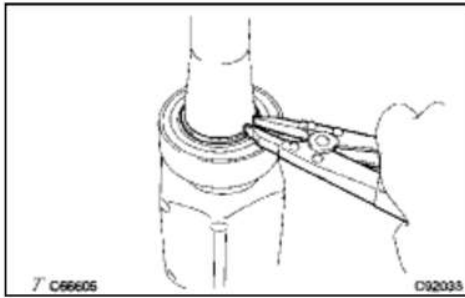


(a) Using SST and a press, remove the drive shaft dust cover.

SST: 09950-00020

13. REMOVE FRONT DRIVE SHAFT BEARING

(a) Using a snap ring expander, remove the drive shaft hole snap ring.



(b) Using SST and a press, remove the bearing.

SST: 09527-10011

(c) Remove the bearing bracket hole snap ring.

NOTICE:

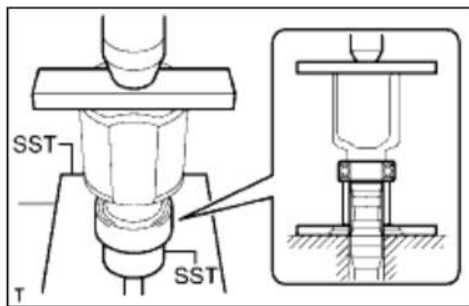
Be careful not to drop the inboard joint assembly.



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001HB001EX
Title: DRIVE SHAFT / PROPELLER SHAFT: FRONT DRIVE SHAFT ASSEMBLY (for 2AZ-FE): REASSEMBLY (2010 Corolla)		

REASSEMBLY

1. INSTALL FRONT DRIVE SHAFT BEARING



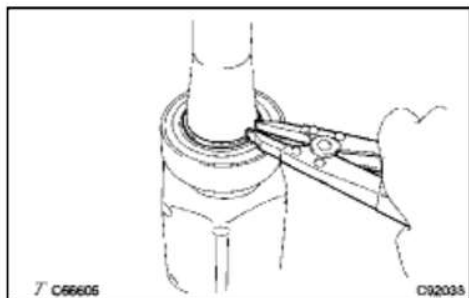
(a) Using SST and a steel plate, install a new front drive shaft bearing.

SST: 09527-30010

SST: 09527-10011

SST: 09630-24014

09620-24051

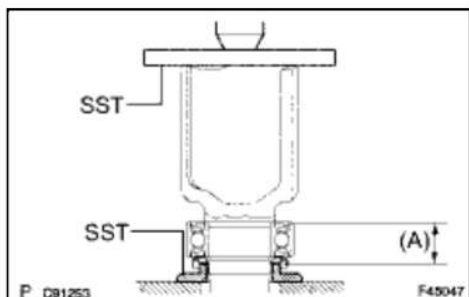


(b) Install a new bearing bracket hole snap ring to the front driver shaft assembly RH.

NOTICE:

The bearing should be completely installed.

2. INSTALL FRONT DRIVE SHAFT DUST COVER (for 2WD)



(a) Using SST and a press, install a new drive shaft dust cover.

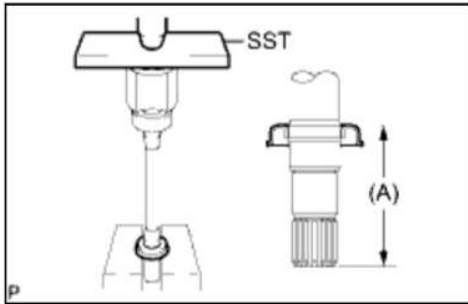
SST: 09527-10011

SST: 09726-40010

Distance (A):

27.1 mm (1.067 in.)

3. INSTALL FRONT DRIVE SHAFT DUST COVER RH (for 2WD)



- (a) Using SST and a press, install a new drive shaft dust cover RH until the distance from the tip of the center drive shaft to the drive shaft dust cover RH meets the specification, as shown in the illustration.

SST: 09527-10011

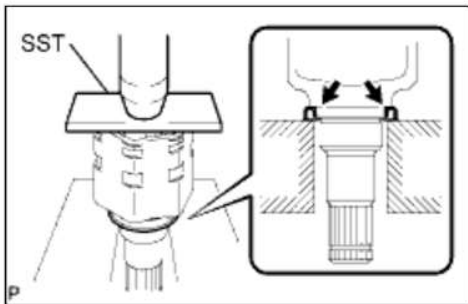
Distance (A):

90.07 to 90.93 mm (3.5460 to 3.5799 in.)

NOTICE:

- The dust cover should be completely installed.
- Be careful not to damage the dust cover.

4. INSTALL FRONT DRIVE SHAFT DUST COVER LH



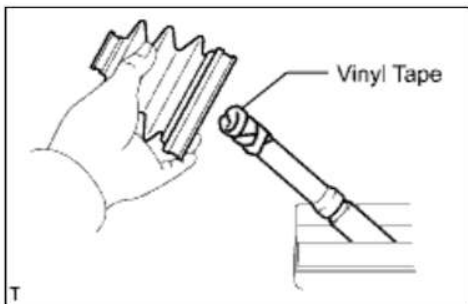
- (a) Using SST and a press, install a new dust cover into the front drive inboard joint assembly until it is flush with the end.

SST: 09527-10011

NOTICE:

- Install the dust cover in the correct direction.
- Do not deform the dust cover.

5. INSTALL OUTBOARD JOINT BOOT



- (a) Wrap the splines of the outboard joint shaft with vinyl tape to prevent the boot from being damaged.

- (b) Install new parts onto the outboard joint shaft in the following order.

- (1) No. 2 front axle outboard joint boot clamp
- (2) Front axle outboard joint boot
- (3) Front axle outboard joint boot clamp

- (c) Pack the joint portion of the outboard joint shaft and outboard joint boot with grease.

Standard Quantity:

97 to 107 g (3.4 to 3.8 oz.)

(d) Install the outboard joint boot onto the outboard joint shaft groove.

NOTICE:

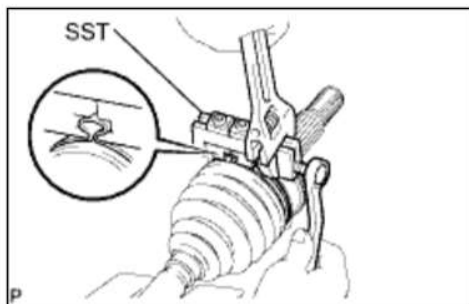
Keep the groove free of grease.

6. INSTALL NO. 2 FRONT AXLE OUTBOARD JOINT BOOT CLAMP

(a) Hold the outboard joint shaft in a vise using aluminum plates.

NOTICE:

Do not overtighten the vise.



(b) Place SST onto the boot clamp, press it against the boot and slightly tighten SST.

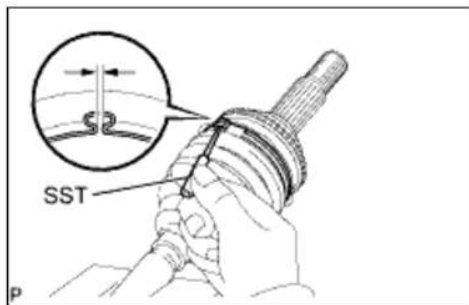
SST: 09521-24010

(c) Tighten SST so that the clearance comes within the specified range.

Standard Clearance:

0.5 to 1.5 mm (0.0197 to 0.0591 in.)

(d) Remove SST.



(e) Using SST, measure the clearance of the boot clamp as shown in the illustration.

SST: 09240-00020

Standard Clearance:

0.5 to 1.5 mm (0.0197 to 0.0591 in.)

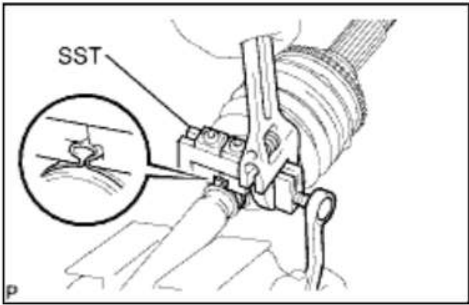
NOTICE:

If the clearance is outside the specified range, retighten SST.

7. INSTALL FRONT AXLE OUTBOARD JOINT BOOT CLAMP

(a) Place SST onto the boot clamp, press it against the boot and slightly tighten SST.

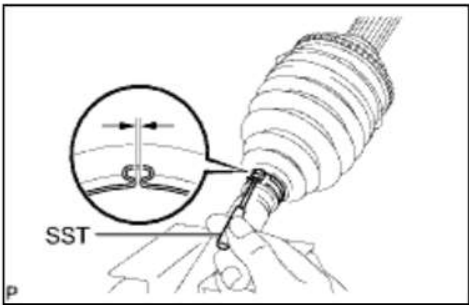
SST: 09521-24010



(b) Tighten SST so that the clearance comes within the specified range.

Standard Clearance:
0.5 to 1.5 mm (0.0197 to 0.0591 in.)

(c) Remove SST.

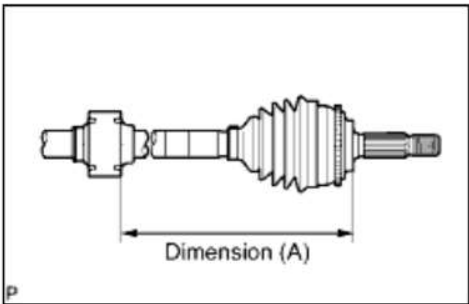


(d) Using SST, measure the clearance of the boot clamp as shown in the illustration.

SST: 09240-00020
Standard Clearance:
0.5 to 1.5 mm (0.0197 to 0.0591 in.)

NOTICE:
If the clearance is outside the specified range, retighten SST.

8. INSTALL FRONT DRIVE SHAFT DAMPER



(a) Install the drive shaft damper onto the front axle outboard shaft assembly as shown in the illustration.

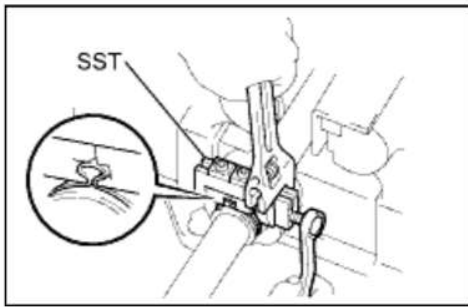
Dimension (A)

LH side	210.0 to 214.0 mm (8.27 to 8.43 in.)
RH side	213.1 to 217.1 mm (8.39 to 8.55 in.)

9. INSTALL FRONT DRIVE SHAFT DAMPER CLAMP

(a) Place SST onto the damper clamp, press it against the boot and slightly tighten SST.

SST: 09521-24010

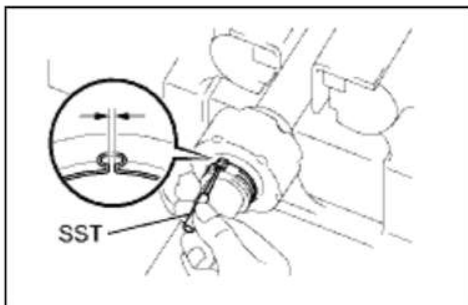


(b) Hold SST and tighten it so that the clearance comes within the specified range.

Standard Clearance:

0.5 to 1.5 mm (0.0197 to 0.0591 in.)

(c) Remove SST.



(d) Using SST, measure the clearance of the damper clamp as shown in the illustration.

SST: 09240-00020

Standard Clearance:

0.5 to 1.5 mm (0.0197 to 0.0591 in.)

NOTICE:

If the clearance is outside the specified range, retighten SST.

10. INSTALL FRONT DRIVE INBOARD JOINT ASSEMBLY

(a) Install new parts onto the outboard joint shaft in the following order.

- (1) Front axle inboard joint boot clamp
- (2) Front axle inboard joint boot
- (3) No. 2 front axle inboard joint boot clamp

(b) Secure the outboard joint shaft in a vise using aluminum plates.

NOTICE:

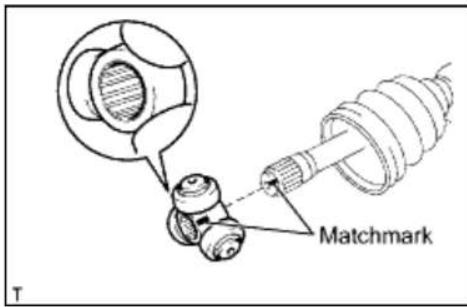
Do not overtighten the vise.

(c) Remove the protective tape.

(d) Align the matchmarks and install the tripod joint onto the front axle outboard joint shaft assembly.

NOTICE:

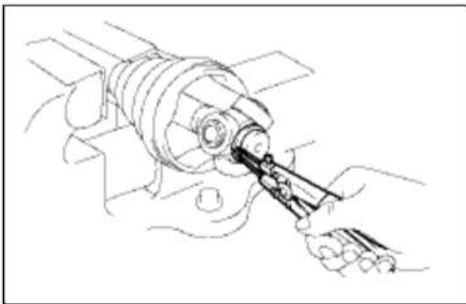
Face the serrated side of the tripod joint outward and install it onto the outboard joint end.



(e) Using a brass bar and hammer, install the tripod joint to the front axle outboard joint shaft assembly.

NOTICE:

- Do not hit the roller portion.
- Keep the tripod joint free of foreign matter.

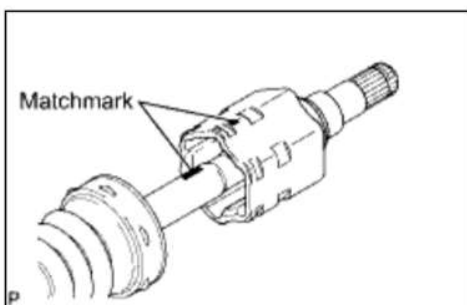


(f) Using a snap ring expander, install a new snap ring to the front axle outboard joint shaft assembly.

(g) Pack the inboard joint with grease.

Standard Quantity:

111 to 121 g (3.9 to 4.3 oz.)



(h) Align the matchmarks and install the inboard joint onto the front axle outboard joint shaft assembly.

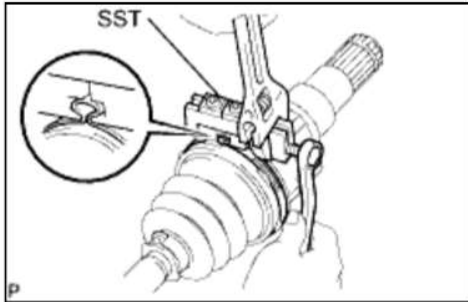
11. INSTALL INBOARD JOINT BOOT

(a) Install the inboard joint boot into the grooves of the inboard joint and outboard joint shaft.

NOTICE:

Keep the grooves free of grease.

12. INSTALL NO. 2 FRONT AXLE INBOARD JOINT BOOT CLAMP



- (a) Place SST onto the boot clamp, press it against the boot and slightly tighten SST.

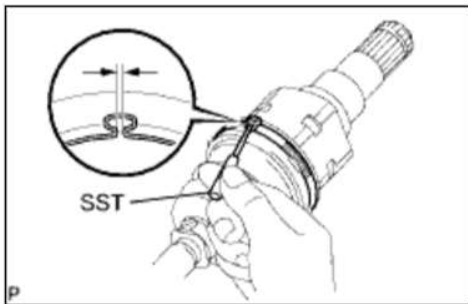
SST: 09521-24010

- (b) Tighten SST so that the clearance comes within the specified range.

Standard Clearance:

0.5 to 1.5 mm (0.0197 to 0.0591 in.)

- (c) Remove SST.



- (d) Using SST, measure the clearance of the boot clamp as shown in the illustration.

SST: 09240-00020

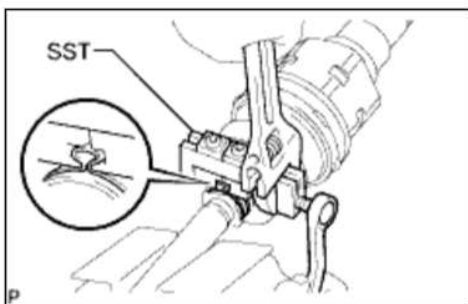
Standard Clearance:

0.5 to 1.5 mm (0.0197 to 0.0591 in.)

NOTICE:

If the clearance is outside the specified range, retighten SST.

13. INSTALL FRONT AXLE INBOARD JOINT BOOT CLAMP



- (a) Place SST onto the boot clamp, press it against the boot and slightly tighten SST.

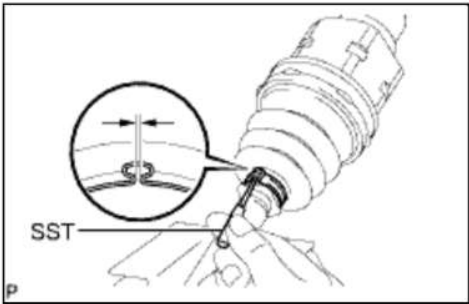
SST: 09521-24010

- (b) Tighten SST so that the clearance comes within the specified range.

Standard Clearance:

0.5 to 1.5 mm (0.0197 to 0.0591 in.)

- (c) Remove SST.

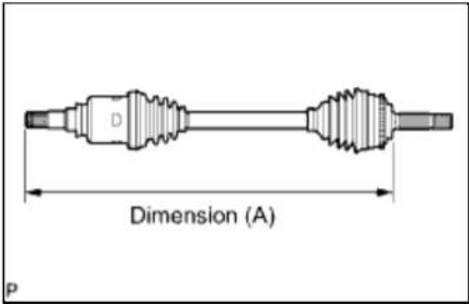


(d) Using SST, measure the clearance of the boot clamp as shown in the illustration.

SST: 09240-00020

Standard Clearance:
0.5 to 1.5 mm (0.0197 to 0.0591 in.)

NOTICE:
If the clearance is outside the specified range, retighten SST.



(e) Check whether the drive shaft dimensions are within the following specifications.

Dimension (A)

LH side	557.1 mm (1.83 ft.)
RH side	873.9 mm (2.87 ft.)

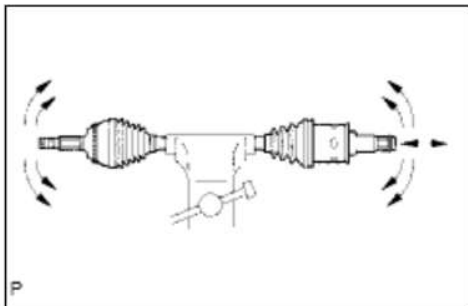
14. INSPECT FRONT DRIVE SHAFT



Last Modified: 3-10-2010	6.4 G	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001IW701GX
Title: DRIVE SHAFT / PROPELLER SHAFT: FRONT DRIVE SHAFT ASSEMBLY (for 2AZ-FE): INSPECTION (2010 Corolla)		

INSPECTION

1. INSPECT FRONT DRIVE SHAFT ASSEMBLY



(a) Check that there is no excessive play in the outboard joint.

(b) Check that the inboard joint slides smoothly in the thrust direction.

(c) Check that there is no excessive play in the radial directions of the inboard joint.

(d) Check the boots for damage.



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001HAW01JX
Title: DRIVE SHAFT / PROPELLER SHAFT: FRONT DRIVE SHAFT ASSEMBLY (for 2AZ-FE): INSTALLATION (2010 Corolla)		

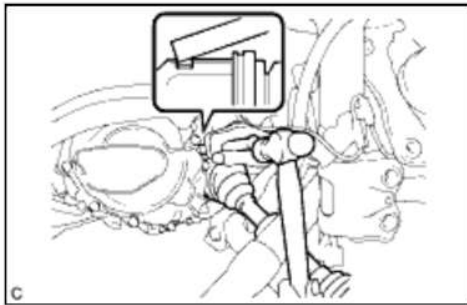
INSTALLATION

1. INSTALL FRONT DRIVE SHAFT HOLE SNAP RING LH (for LH Side)

- (a) Install a new front drive shaft hole snap ring LH to the front drive inboard joint assembly.

2. INSTALL FRONT DRIVE SHAFT ASSEMBLY LH

- (a) Align the inboard joint splines, and using a brass bar and a hammer, install the front drive shaft assembly LH.



NOTICE:

- Face the end gap of the front drive inboard joint hole snap ring downward.
- Do not damage the oil seal.
- Do not damage the inboard joint boot.

HINT:

Confirm whether the drive shaft is securely driven in by checking the reaction force and sound.

3. INSTALL FRONT DRIVE SHAFT ASSEMBLY RH



- (a) Install the front drive shaft assembly RH.

- (b) Using a screwdriver, install a new bearing bracket hole snap ring.

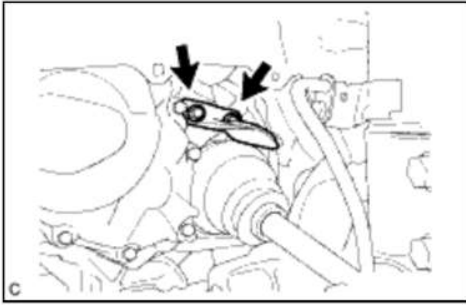
NOTICE:

- Do not damage the boot or oil seal.
- Move the drive shaft assembly while keeping it level.

- (c) Install a new bolt.

Torque: 32 N·m (330 kgf·cm, 24ft·lbf)

4. INSTALL MANUAL TRANSMISSION CASE PROTECTOR (for Manual Transaxle)



(a) Install the manual transmission case protector with the 2 bolts.

Torque: 18 N·m (184 kgf·cm, 13ft·lbf)

5. INSTALL FRONT AXLE ASSEMBLY LH INFO

6. INSTALL FRONT AXLE ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

7. CONNECT FRONT LOWER SUSPENSION ARM LH INFO

8. CONNECT FRONT LOWER SUSPENSION ARM RH

HINT:

Perform the same procedure as for the LH side.

9. INSTALL TIE ROD END SUB-ASSEMBLY LH INFO

10. INSTALL TIE ROD END SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

11. INSTALL FRONT STABILIZER LINK ASSEMBLY LH INFO

12. INSTALL FRONT STABILIZER LINK ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

13. CONNECT FRONT SPEED SENSOR LH (for TMC Made) INFO

14. CONNECT FRONT SPEED SENSOR RH (for TMC Made)

HINT:

Perform the same procedure as for the LH side.

15. CONNECT FRONT SPEED SENSOR LH (except TMC Made) INFO

16. CONNECT FRONT SPEED SENSOR RH (except TMC Made)

HINT:

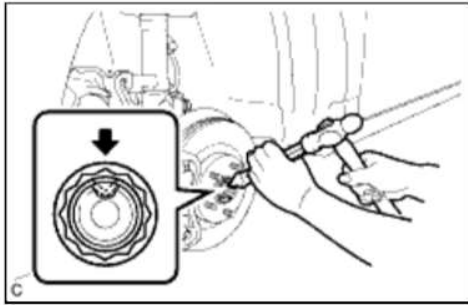
Perform the same procedure as for the LH side.

17. INSTALL FRONT AXLE SHAFT NUT LH

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

NOTICE:

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



(b) Using a socket wrench (30 mm), install a new axle shaft nut.

Torque: 216 N·m (2203 kgf·cm, 160ft·lbf)

(c) Using a chisel and hammer, caulk the axle shaft nut.

18. INSTALL FRONT AXLE SHAFT NUT RH

HINT:

Perform the same procedure as for the LH side.

19. INSTALL FRONT WHEELS

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

20. ADD MANUAL TRANSAXLE OIL (for Manual Transaxle) INFO

21. ADD AUTOMATIC TRANSAXLE FLUID (for Automatic Transaxle)

22. INSPECT MANUAL TRANSAXLE OIL (for Manual Transaxle) INFO

23. INSPECT AUTOMATIC TRANSAXLE FLUID (for Automatic Transaxle) INFO

24. INSPECT FOR OIL LEAK (for Manual Transaxle)

25. INSPECT FOR FLUID LEAK (for Automatic Transaxle)

26. INSTALL ENGINE UNDER COVER LH

27. INSTALL ENGINE UNDER COVER RH

28. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

HINT: INFO .

29. INSPECT SPEED SENSOR SIGNAL (w/o VSC)

HINT: INFO .

30. INSPECT SPEED SENSOR SIGNAL (w/ VSC)

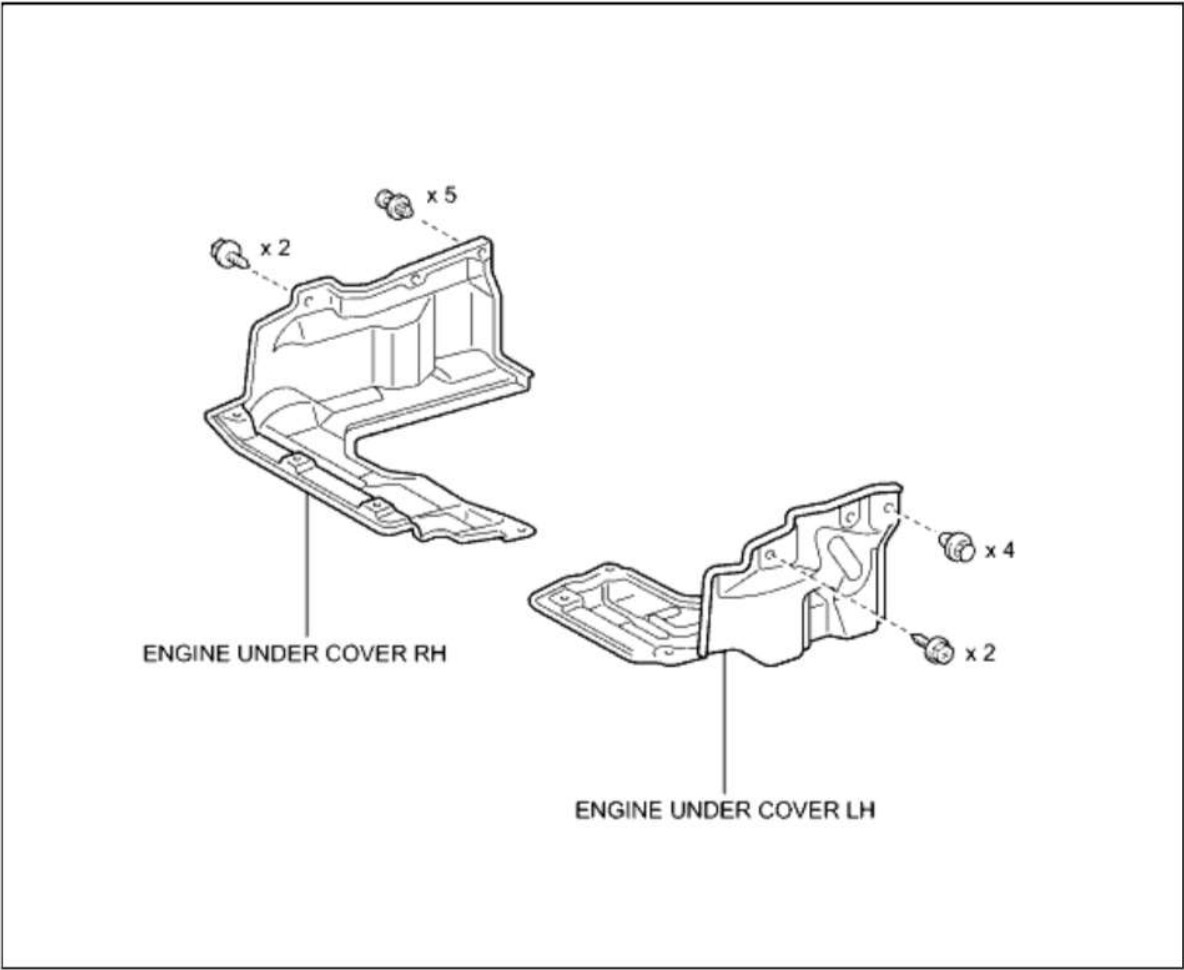
HINT:  .



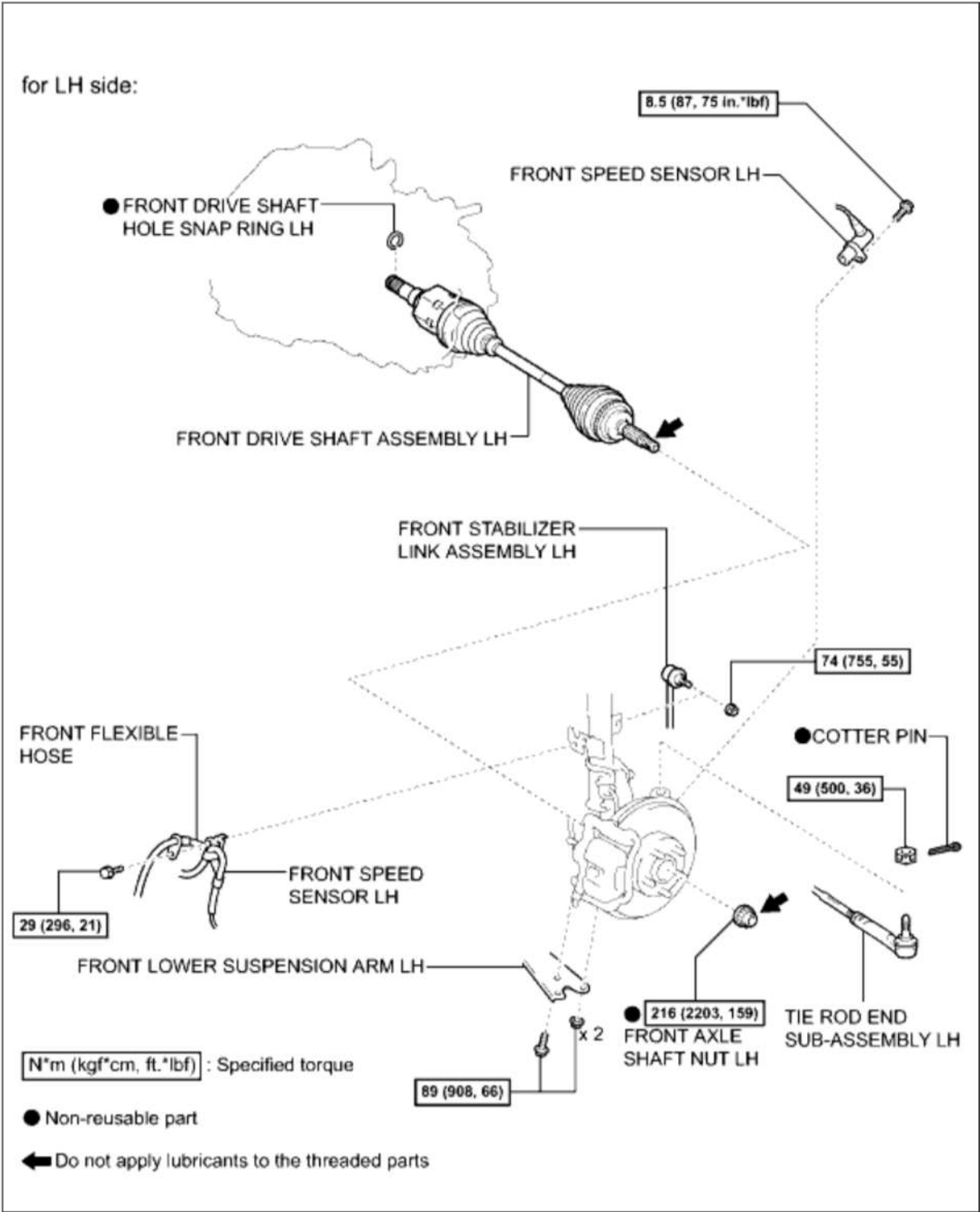
Last Modified: 3-10-2010	6.4 K	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000003CY3006X
Title: DRIVE SHAFT / PROPELLER SHAFT: FRONT DRIVE SHAFT ASSEMBLY (for 2ZR-FE): COMPONENTS (2010 Corolla)		

COMPONENTS

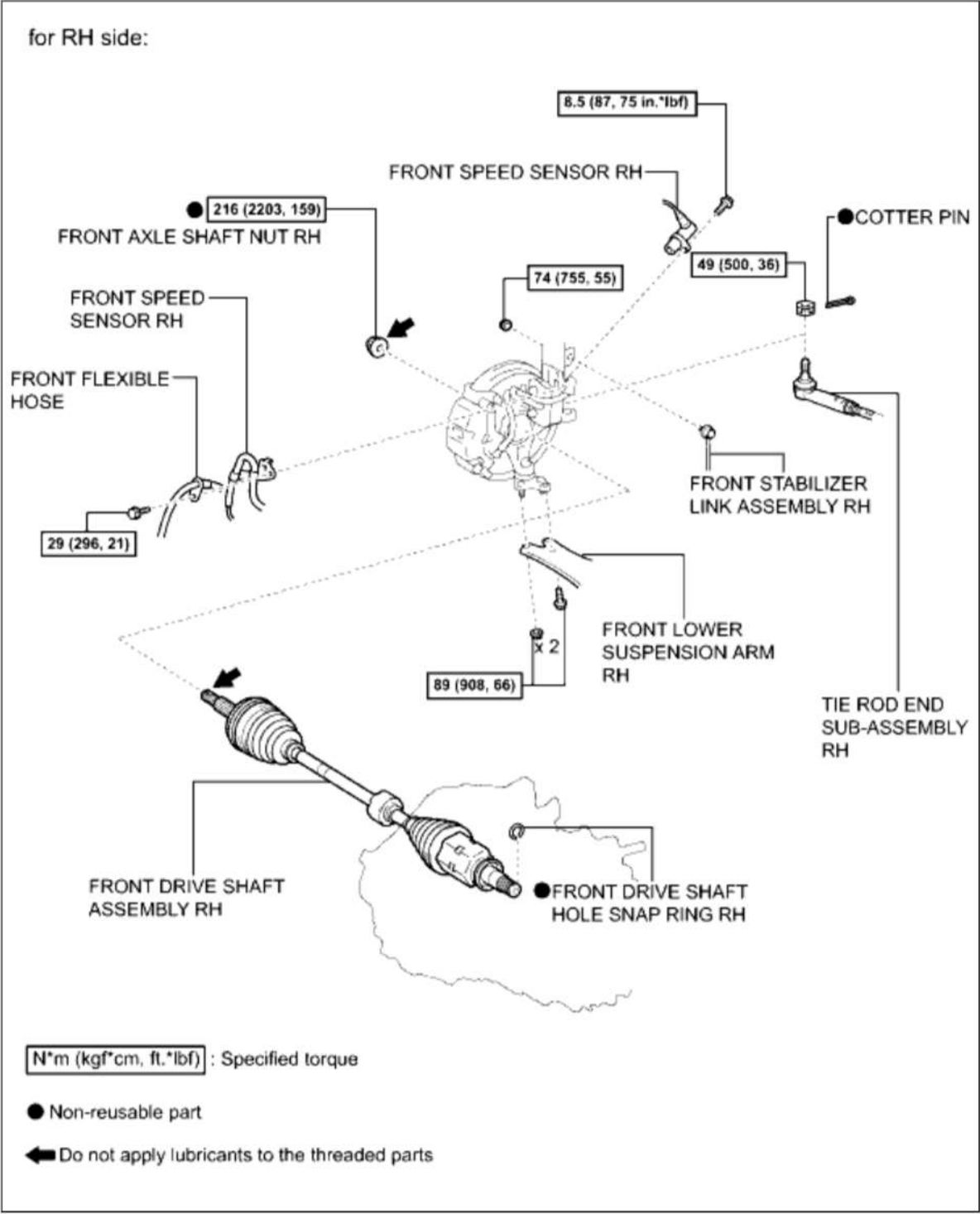
ILLUSTRATION



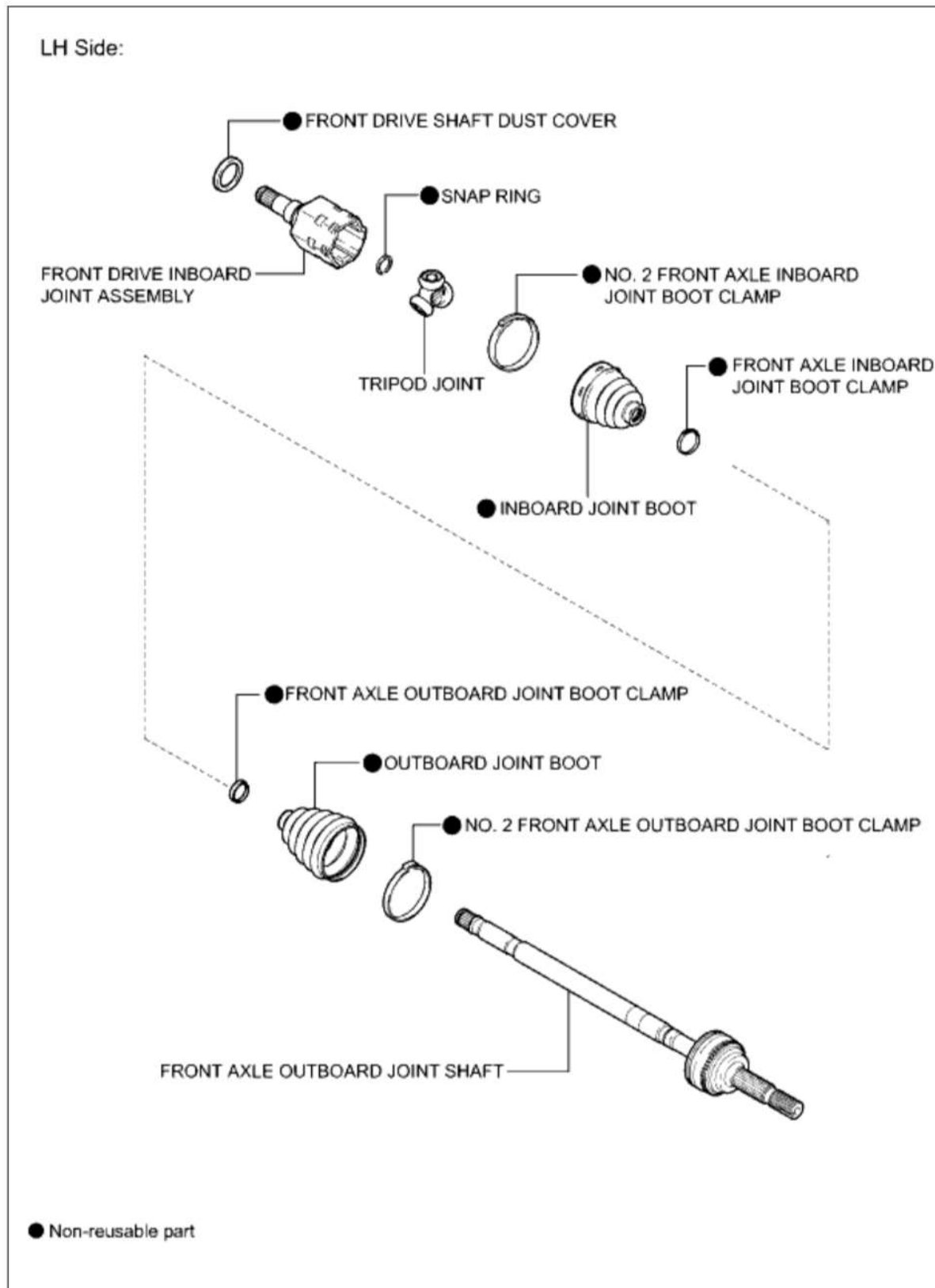
ILLUSTRATION



ILLUSTRATION

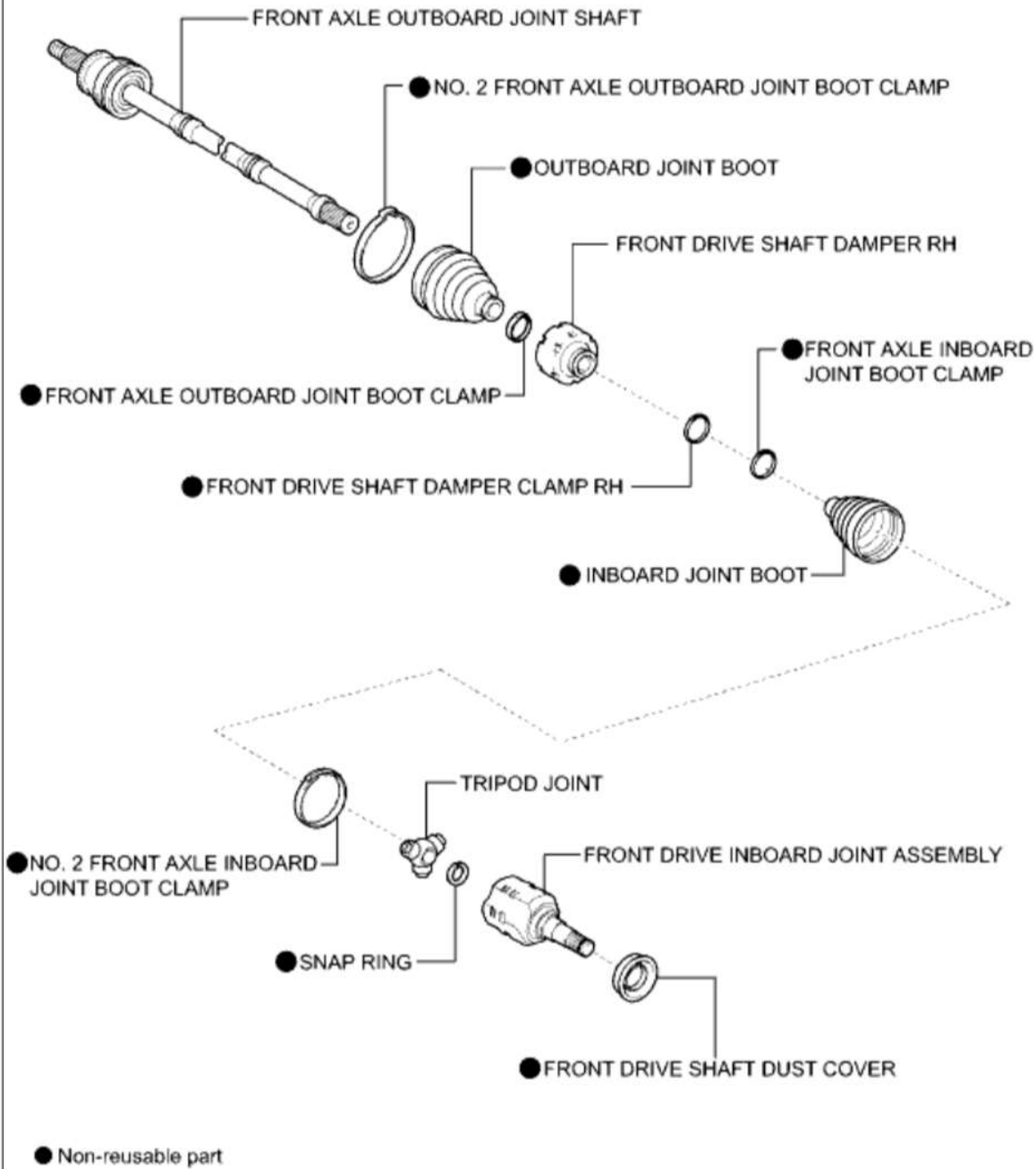


ILLUSTRATION



ILLUSTRATION

RH Side:



TOYOTA

Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001HAY01KX
Title: DRIVE SHAFT / PROPELLER SHAFT: FRONT DRIVE SHAFT ASSEMBLY (for 2ZR-FE): REMOVAL (2010 Corolla)		

REMOVAL

1. REMOVE ENGINE UNDER COVER LH

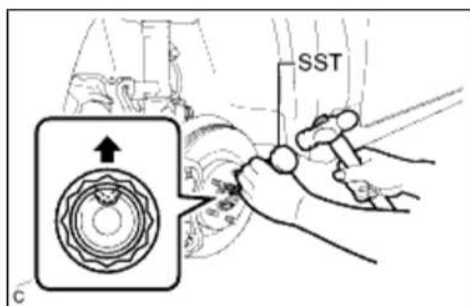
2. REMOVE ENGINE UNDER COVER RH

3. DRAIN MANUAL TRANSAXLE OIL (for Manual Transaxle) [INFO](#)

4. DRAIN AUTOMATIC TRANSAXLE FLUID (for Automatic Transaxle) [INFO](#)

5. REMOVE FRONT WHEELS

6. REMOVE FRONT AXLE SHAFT NUT LH



(a) Using SST and a hammer, release the staked part of the front axle shaft nut LH.

SST: 09930-00010

NOTICE:

- Insert SST into the groove with the flat surface facing up.
- Do not damage the tip of SST using grinders.
- Completely unstake the staked part before removing the front axle shaft nut.
- Do not damage the threads of the drive shaft.

(b) Using a socket wrench (30 mm), remove the front axle shaft nut LH.

7. REMOVE FRONT AXLE SHAFT NUT RH

HINT:

Perform the same procedure as for the LH side.

8. SEPARATE FRONT SPEED SENSOR LH (for TMC Made) [INFO](#)

9. SEPARATE FRONT SPEED SENSOR RH (for TMC Made)

HINT:

Perform the same procedure as for the LH side.

10. SEPARATE FRONT SPEED SENSOR LH (except TMC Made) [INFO](#)

11. SEPARATE FRONT SPEED SENSOR RH (except TMC Made)

HINT:

Perform the same procedure as for the LH side.

12. SEPARATE FRONT STABILIZER LINK ASSEMBLY LH INFO**13. SEPARATE FRONT STABILIZER LINK ASSEMBLY RH****HINT:**

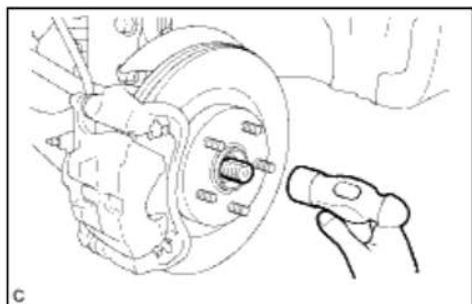
Perform the same procedure as for the LH side.

14. SEPARATE TIE ROD END SUB-ASSEMBLY LH INFO**15. SEPARATE TIE ROD END SUB-ASSEMBLY RH****HINT:**

Perform the same procedure as for the LH side.

16. SEPARATE FRONT LOWER SUSPENSION ARM LH INFO**17. SEPARATE FRONT LOWER SUSPENSION ARM RH****HINT:**

Perform the same procedure as for the LH side.

18. SEPARATE FRONT AXLE ASSEMBLY LH

- (a) Using a plastic hammer, tap the end of the drive shaft and disengage the fitting between the drive shaft and front axle assembly LH.

HINT:

If it is difficult to disengage the fitting, tap the end of the drive shaft with a brass bar and hammer.

- (b) Push the front axle assembly LH out of the vehicle to remove the drive shaft from the front axle assembly LH.

NOTICE:

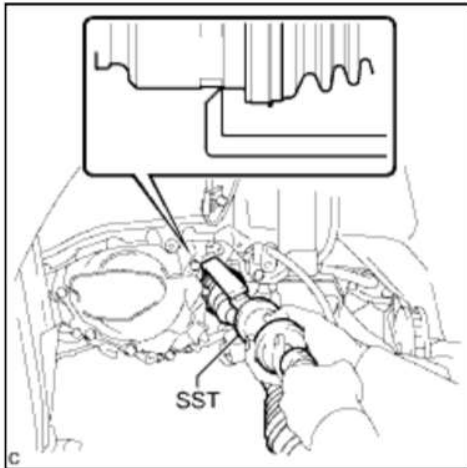
- Do not push out the front axle further than necessary.
- Do not damage the outboard joint boot.
- Do not damage the speed sensor rotor.

19. SEPARATE FRONT AXLE ASSEMBLY RH**HINT:**

Perform the same procedure as for the LH side.

20. REMOVE FRONT DRIVE SHAFT ASSEMBLY LH

- (a) Using SST, remove the front drive shaft assembly LH.



SST: 09520-01010

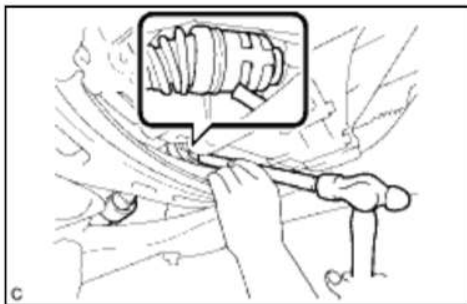
SST: 09520-24010

09520-32040

NOTICE:

- Do not damage the oil seal.
- Do not damage the inboard joint boot.
- Do not drop the drive shaft.

21. REMOVE FRONT DRIVE SHAFT ASSEMBLY RH

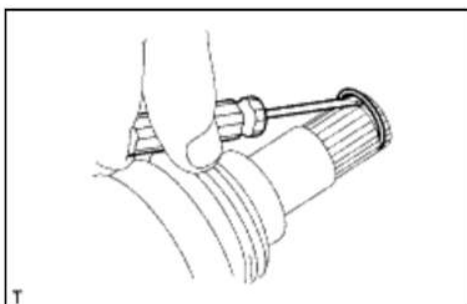


- (a) Using a brass bar and hammer, remove the front drive shaft assembly RH.

NOTICE:

- Do not damage the oil seal.
- Do not damage the inboard joint boot.
- Do not drop the drive shaft.

22. REMOVE FRONT DRIVE SHAFT HOLE SNAP RING LH

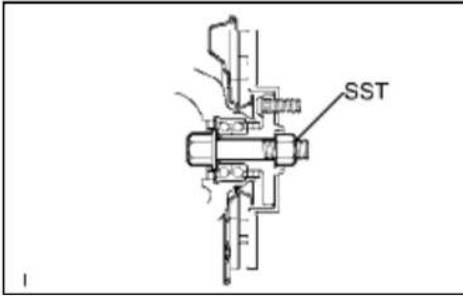


- (a) Using a screwdriver, remove the front drive shaft hole snap ring LH from the front drive inboard joint assembly LH.

23. REMOVE FRONT DRIVE SHAFT HOLE SNAP RING RH

HINT:

Perform the same procedure as for the LH side.



24. FIX FRONT AXLE ASSEMBLY LH

SST: 09608-16042

09608-02021

09608-02041

NOTICE:

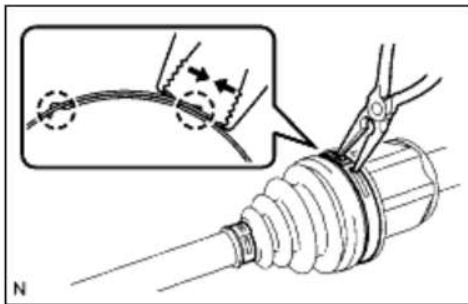
The hub bearing could be damaged if it is subjected to the vehicle weight, such as when moving the vehicle with the drive shaft removed. Therefore, make sure to support the hub bearing with SST when the vehicle weight is applied.



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001IWA01DX
Title: DRIVE SHAFT / PROPELLER SHAFT: FRONT DRIVE SHAFT ASSEMBLY (for 2ZR-FE): DISASSEMBLY (2010 Corolla)		

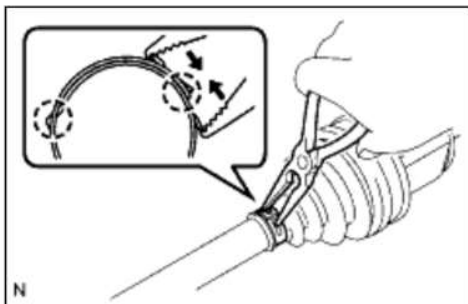
DISASSEMBLY

1. REMOVE NO. 2 FRONT AXLE INBOARD JOINT BOOT CLAMP



(a) Using pliers, remove the No. 2 front axle inboard joint boot clamp as shown in the illustration.

2. REMOVE FRONT AXLE INBOARD JOINT BOOT CLAMP



(a) Using pliers, remove the front axle inboard joint boot clamp as shown in the illustration.

3. SEPARATE INBOARD JOINT BOOT

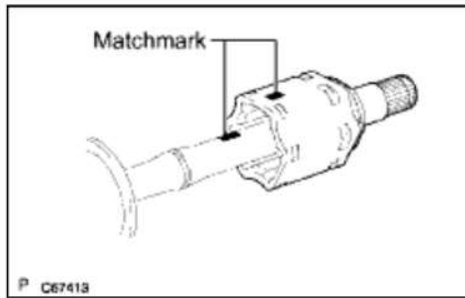
(a) Separate the inboard joint boot from the front axle inboard joint assembly.

4. REMOVE FRONT DRIVE INBOARD JOINT ASSEMBLY

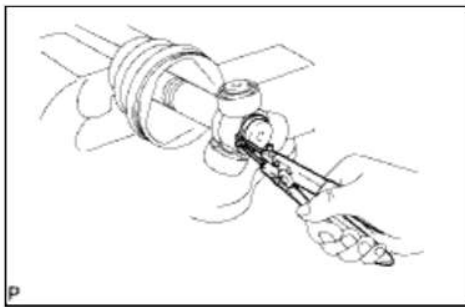
(a) Put matchmarks on the front axle inboard joint assembly and front axle outboard joint shaft.

NOTICE:

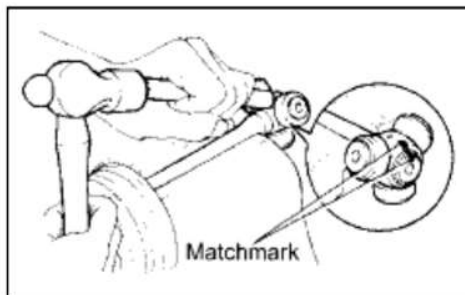
Do not use a punch for the marks.



(b) Remove the front axle inboard joint assembly from the front axle outboard joint shaft.



(c) Using a snap ring expander, remove the shaft snap ring.



(d) Put matchmarks on the outboard joint shaft and tripod joint.

NOTICE:

Do not use a punch for the marks.

(e) Using a brass bar and a hammer, remove the tripod joint from the front axle outboard joint shaft.

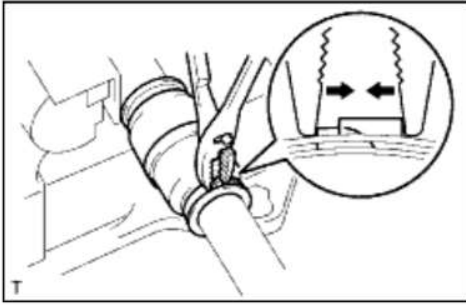
NOTICE:

Do not tap the roller.

(f) Remove the inboard joint boot from the front axle outboard joint shaft.

5. REMOVE FRONT DRIVE SHAFT DAMPER CLAMP RH (for RH Side)

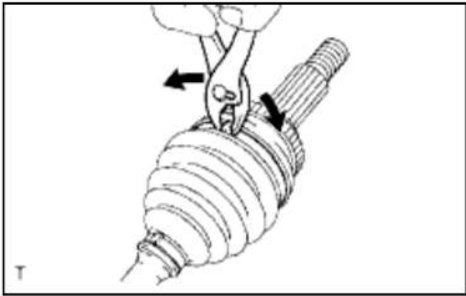
(a) Using pliers, remove the front drive shaft damper clamp RH, as shown in the illustration.



6. REMOVE FRONT DRIVE SHAFT DAMPER RH (for RH Side)

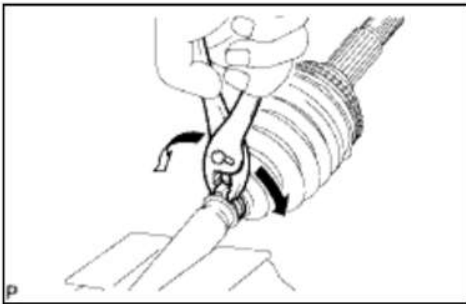
(a) Remove the front drive shaft damper RH from the front axle outboard joint shaft.

7. REMOVE NO. 2 FRONT AXLE OUTBOARD JOINT BOOT CLAMP



(a) Using pliers, remove the No. 2 front axle outboard joint boot clamp as shown in the illustration.

8. REMOVE FRONT AXLE OUTBOARD JOINT BOOT CLAMP



(a) Using pliers, remove the front axle outboard joint boot clamp as shown in the illustration.

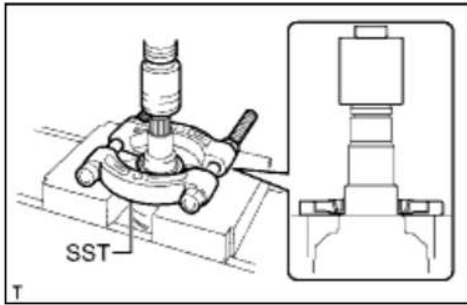
9. REMOVE OUTBOARD JOINT BOOT

(a) Remove the outboard joint boot from the front axle outboard joint shaft.

(b) Remove the grease from the outboard joint.

10. REMOVE FRONT DRIVE SHAFT DUST COVER

(a) Using SST and a press, remove the front drive shaft dust



cover.

SST: 09950-00020

NOTICE:

Be careful not to drop the inboard joint assembly.

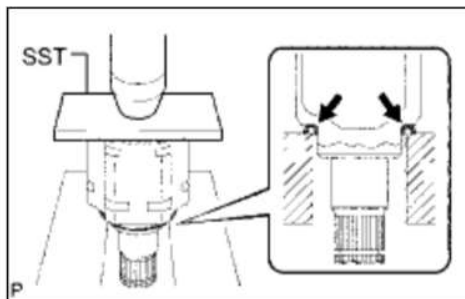


TOYOTA

Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001IWB01DX
Title: DRIVE SHAFT / PROPELLER SHAFT: FRONT DRIVE SHAFT ASSEMBLY (for 2ZR-FE): REASSEMBLY (2010 Corolla)		

REASSEMBLY

1. INSTALL FRONT DRIVE SHAFT DUST COVER



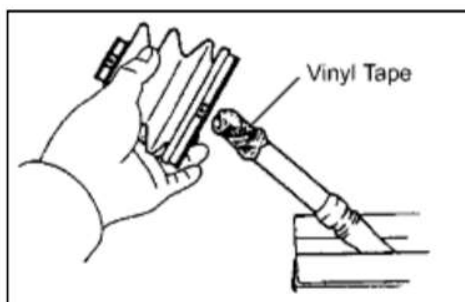
- (a) Using SST and a press, install a new dust cover into the front drive inboard joint assembly until it is flush with the end.

SST: 09527-10011

NOTICE:

- Install the dust cover in the correct direction.
- Do not deform the dust cover.

2. INSTALL OUTBOARD JOINT BOOT



- (a) Wrap the splines of the outboard joint shaft with vinyl tape to prevent the boot from being damaged.

- (b) Install new parts onto the outboard joint shaft in the following order.

- (1) No. 2 front axle outboard joint boot clamp
- (2) Outboard joint boot
- (3) Front axle outboard joint boot clamp

- (c) Pack the joint portion of the front axle outboard joint shaft and outboard joint boot with grease.

Grease capacity:

85 to 105 g (3.0 to 3.7 oz.)

- (d) Install the outboard joint boot onto the outboard joint shaft groove.

NOTICE:

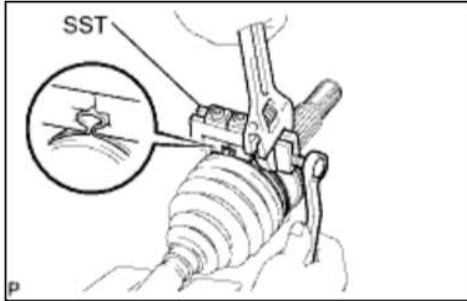
Keep the groove free of grease.

3. INSTALL NO. 2 FRONT AXLE OUTBOARD JOINT BOOT CLAMP

- (a) Hold the outboard joint shaft in a vise using aluminum plates.

NOTICE:

Do not overtighten the vise.



- (b) Place SST onto the boot clamp, press it against the boot and slightly tighten SST.

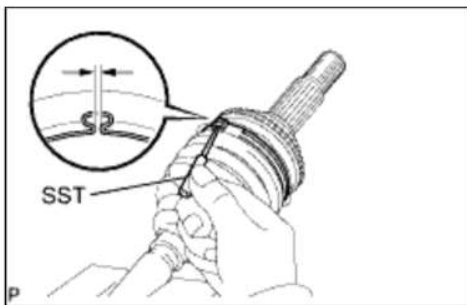
SST: 09521-24010

- (c) Tighten SST so that the clearance comes within the specified range.

NOTICE:

Do not overtighten SST.

- (d) Remove SST.



- (e) Using SST, measure the clearance of the boot clamp as shown in the illustration.

SST: 09240-00020

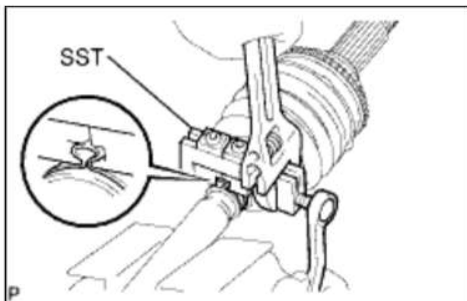
Standard Clearance:

1.2 to 4.0 mm (0.0473 to 0.157 in.)

NOTICE:

If the clearance is outside the specified range, retighten SST.

4. INSTALL FRONT AXLE OUTBOARD JOINT BOOT CLAMP



- (a) Place SST onto the boot clamp, press it against the boot and slightly tighten SST.

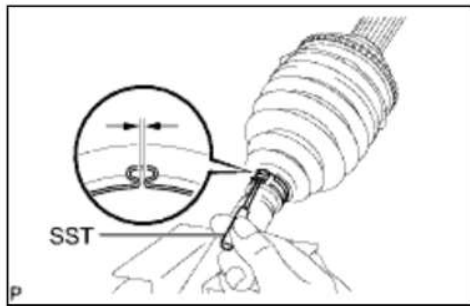
SST: 09521-24010

- (b) Tighten SST so that the clearance comes within the specified range.

NOTICE:

Do not overtighten SST.

- (c) Remove SST.



(d) Using SST, measure the clearance of the boot clamp as shown in the illustration.

SST: 09240-00020

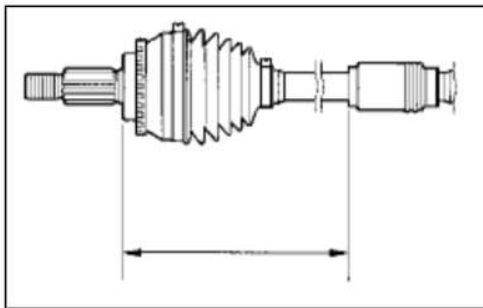
Standard Clearance:

1.2 to 4.0 mm (0.0473 to 0.157 in.)

NOTICE:

If the clearance is outside the specified range, retighten SST.

5. INSTALL FRONT DRIVE SHAFT DAMPER RH

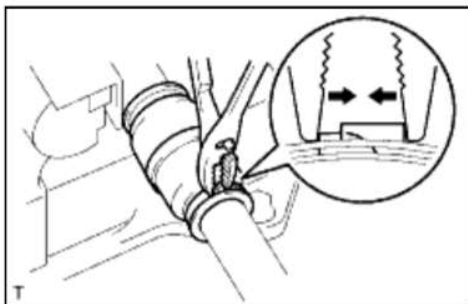


(a) Install the drive shaft damper onto the front axle outboard shaft assembly as shown in the illustration.

Distance:

412.5 to 416.5 mm (1.3535 to 1.3665 ft.)

6. INSTALL FRONT DRIVE SHAFT DAMPER CLAMP RH (for RH Side)



(a) Using pliers, install a new drive shaft damper clamp, as shown in the illustration.

7. INSTALL FRONT DRIVE INBOARD JOINT ASSEMBLY

(a) Install new parts onto the outboard joint shaft in the following order.

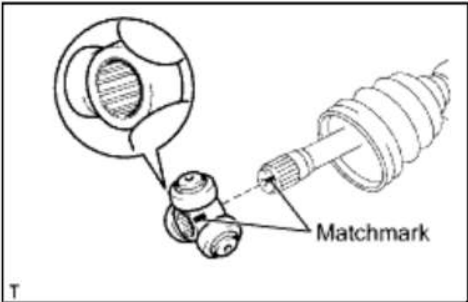
- (1) Front axle inboard joint boot clamp
- (2) Inboard joint boot
- (3) No. 2 front axle inboard joint boot clamp

(b) Secure the front axle outboard joint shaft in a vise using aluminum plates.

NOTICE:

Do not overtighten the vise.

(c) Remove the protective tape.

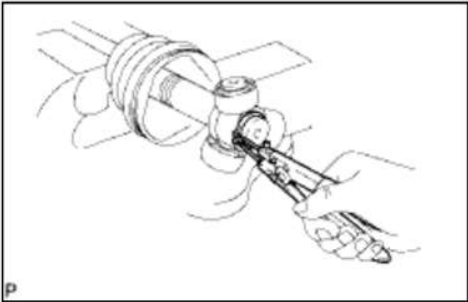


(d) Align the matchmarks and install the tripod joint onto the front axle outboard joint shaft.

NOTICE:
Face the serrated side of the tripod joint outward and install it onto the outboard joint end.

(e) Using a brass bar and hammer, install the tripod joint to the front axle outboard joint shaft.

- NOTICE:**
- Do not hit the roller portion.
 - Keep the tripod joint free of foreign matter.

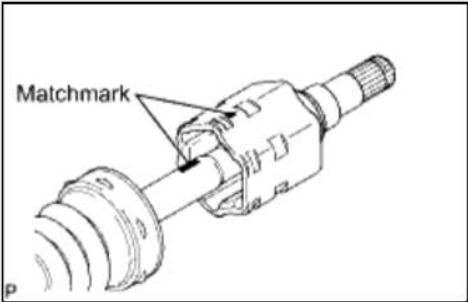


(f) Using a snap ring expander, install a new snap ring to the front axle outboard joint shaft.

(g) Pack the inboard joint with grease.

Grease Capacity

for MEXICO LH side	155 to 175 g (5.5 to 6.2 oz.)
except MEXICO LH side	110 to 130 g (3.9 to 4.6 oz.)

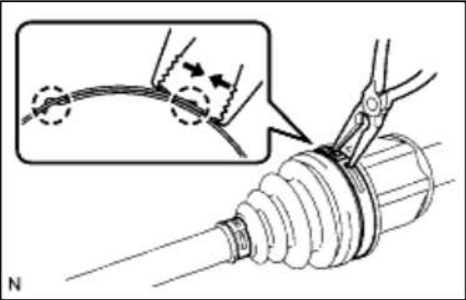


(h) Align the matchmarks and install the inboard joint onto the front axle outboard joint shaft.

8. INSTALL INBOARD JOINT BOOT

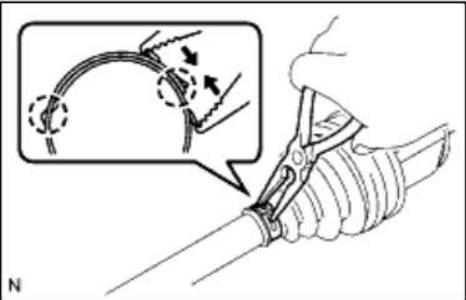
(a) Install the inboard joint boot to the inboard joint assembly.

9. INSTALL NO. 2 FRONT AXLE INBOARD JOINT BOOT CLAMP



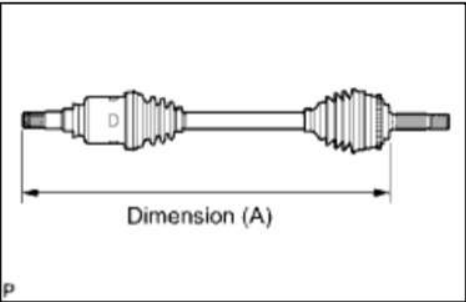
(a) Using pliers, install a new No. 2 front axle inboard joint boot clamp as shown in the illustration.

10. INSTALL FRONT AXLE INBOARD JOINT BOOT CLAMP



(a) Using pliers, install the new front axle inboard joint boot clamp as shown in the illustration.

(b) Check whether the drive shaft dimensions are within the following specifications.



Dimension (A)

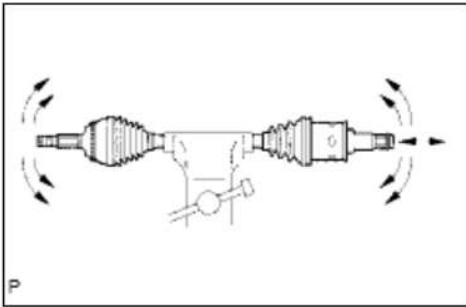
LH side (for MEXICO)	582.5 mm (1.91 ft.)
LH side (except MEXICO)	580.3 mm (1.90 ft.)
RH side	856.3 mm (2.81 ft.)

11. INSPECT FRONT DRIVE SHAFT INFO

Last Modified: 3-10-2010	6.4 G	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001IW701HX
Title: DRIVE SHAFT / PROPELLER SHAFT: FRONT DRIVE SHAFT ASSEMBLY (for 2ZR-FE): INSPECTION (2010 Corolla)		

INSPECTION

1. INSPECT FRONT DRIVE SHAFT ASSEMBLY



(a) Check that there is no excessive play in the outboard joint.

(b) Check that the inboard joint slides smoothly in the thrust direction.

(c) Check that there is no excessive play in the radial directions of the inboard joint.

(d) Check the boots for damage.



Last Modified: 3-10-2010	6.4 A	From: 200901
Model Year: 2010	Model: Corolla	Doc ID: RM000001HAW01KX
Title: DRIVE SHAFT / PROPELLER SHAFT: FRONT DRIVE SHAFT ASSEMBLY (for 2ZR-FE): INSTALLATION (2010 Corolla)		

INSTALLATION

1. INSTALL FRONT DRIVE SHAFT HOLE SNAP RING LH

- (a) Install a new front drive shaft hole snap ring LH to the front drive inboard joint assembly.

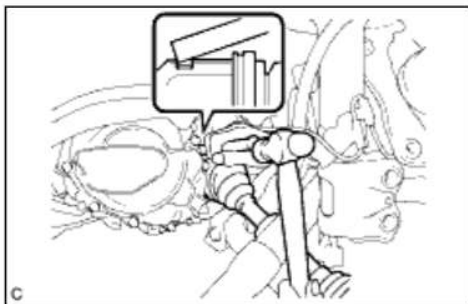
2. INSTALL FRONT DRIVE SHAFT HOLE SNAP RING RH

HINT:

Perform the same procedure as for the LH side.

3. INSTALL FRONT DRIVE SHAFT ASSEMBLY LH

- (a) Align the inboard joint splines, and using a brass bar and a hammer, install the front drive shaft assembly LH.



NOTICE:

- Face the end gap of the front drive inboard joint hole snap ring downward.
- Do not damage the oil seal.
- Do not damage the inboard joint boot.

HINT:

Confirm whether the drive shaft is securely driven in by checking the reaction force and sound.

4. INSTALL FRONT DRIVE SHAFT ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

5. INSTALL FRONT AXLE ASSEMBLY LH

- (a) Push the front axle assembly LH out of the vehicle to align the spline of the drive shaft with the front axle assembly LH and insert the front axle assembly LH.

NOTICE:

- Do not push out the front axle further than necessary.
- Do not damage the outboard joint boot.
- Check for any foreign matter on the speed sensor rotor and insertion part.
- Do not damage the speed sensor rotor.

6. INSTALL FRONT AXLE ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

7. INSTALL FRONT LOWER SUSPENSION ARM LH

8. INSTALL FRONT LOWER SUSPENSION ARM RH

HINT:

Perform the same procedure as for the LH side.

9. CONNECT TIE ROD END SUB-ASSEMBLY LH

10. CONNECT TIE ROD END SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

11. INSTALL FRONT STABILIZER LINK ASSEMBLY LH

12. INSTALL FRONT STABILIZER LINK ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

13. CONNECT FRONT SPEED SENSOR LH (for TMC Made)

14. CONNECT FRONT SPEED SENSOR RH (for TMC Made)

HINT:

Perform the same procedure as for the LH side.

15. CONNECT FRONT SPEED SENSOR LH (except TMC Made)

16. CONNECT FRONT SPEED SENSOR RH (except TMC Made)

HINT:

Perform the same procedure as for the LH side.

17. INSTALL FRONT AXLE SHAFT NUT LH

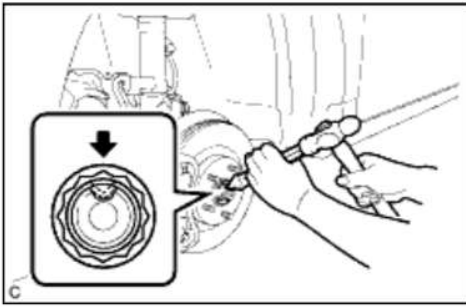
(a) Clean the threaded parts on the drive shaft and front axle shaft nut using a non-residue solvent.

NOTICE:

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

(b) Using a socket wrench (30 mm), install a new front axle shaft nut.

Torque: 216 N·m (2203 kgf·cm, 160ft·lbf)



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

18. INSTALL FRONT AXLE SHAFT NUT RH

HINT:

Perform the same procedure as for the LH side.

19. INSTALL FRONT WHEELS

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

20. ADD MANUAL TRANSAXLE OIL (for Manual Transaxle) INFO

21. ADD AUTOMATIC TRANSAXLE FLUID (for Automatic Transaxle)

22. INSPECT MANUAL TRANSAXLE OIL (for Manual Transaxle) INFO

23. INSPECT AUTOMATIC TRANSAXLE FLUID (for Automatic Transaxle) INFO

24. INSPECT FOR OIL LEAK (for Manual Transaxle)

25. INSPECT FOR FLUID LEAK (for Automatic Transaxle)

26. INSTALL ENGINE UNDER COVER LH

27. INSTALL ENGINE UNDER COVER RH

28. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

HINT: INFO .

29. INSPECT SPEED SENSOR SIGNAL (w/o VSC)

HINT: INFO .

30. INSPECT SPEED SENSOR SIGNAL (w/ VSC)

HINT: INFO .



TOYOTA