**DRIVE SHAFT SYSTEM**

**PROBLEM SYMPTOMS TABLE**

**HINT:**

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

**Drive shaft system**

**PROBLEM SYMPTOMS TABLE**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Suspected Area</th>
<th>Refer to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front wheel shimmy</td>
<td>1. Front drive shaft for 2WD (worn)</td>
<td><strong>FRONT DRIVE SHAFT ASSEMBLY (FOR 2WD)</strong></td>
</tr>
<tr>
<td></td>
<td>2. Front drive shaft for 4WD (worn)</td>
<td><strong>FRONT DRIVE SHAFT ASSEMBLY (FOR 4WD)</strong></td>
</tr>
<tr>
<td>Rear wheel shimmy</td>
<td>1. Rear drive shaft (worn)</td>
<td><strong>REAR DRIVE SHAFT ASSEMBLY</strong></td>
</tr>
</tbody>
</table>

**FRONT DRIVE SHAFT ASSEMBLY (FOR 2WD)**

**COMPONENTS**
Fig. 1: Identifying Front Drive Shaft Assembly Components & Torque Specifications (2WD) (1 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
Fig. 2: Identifying Front Drive Shaft Assembly Components & Torque Specifications (2WD) (2 Of 2)  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
Fig. 3: Identifying Front Drive Shaft Assembly Components (2WD)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL

1. REMOVE FRONT WHEEL
2. **DRAIN AUTOMATIC TRANSAXLE FLUID**
   a. Drain the automatic transaxle fluid for U140F (see **REMOVAL**).
   b. Drain the automatic transaxle fluid for U241E (see **REMOVAL**).
   c. Drain the automatic transaxle fluid for U151E (see **REMOVAL**).

3. **REMOVE FRONT AXLE HUB NUT** (See appropriate step(s) under **REMOVAL**)

4. **DISCONNECT FRONT SPEED SENSOR LH**
   a. Disconnect the speed sensor (see **REMOVAL**).

5. **REMOVE FRONT SPEED SENSOR RH**

   **HINT:**

   Use the same procedures described for the LH side.

6. **DISCONNECT FRONT DISC BRAKE CYLINDER ASSEMBLY LH** (See **REMOVAL**)

7. **DISCONNECT FRONT DISC BRAKE CYLINDER ASSEMBLY RH**

   **HINT:**

   Use the same procedures described for the LH side.

8. **REMOVE FRONT STABILIZER LINK ASSEMBLY LH** (See **REMOVAL**)

9. **REMOVE FRONT STABILIZER LINK ASSEMBLY RH**

   **HINT:**

   Use the same procedures described for the LH side.

10. **DISCONNECT FRONT SUSPENSION LOWER NO. 1 ARM SUB-ASSEMBLY LH** (See **REMOVAL**)

11. **DISCONNECT FRONT SUSPENSION LOWER NO. 1 ARM SUB-ASSEMBLY RH**

   **HINT:**

   Use the same procedures described for the LH side.

12. **DISCONNECT STEERING KNUCKLE WITH AXLE HUB LH**

    a. Put matchmarks on the drive shaft and axle hub.

    **NOTE:** Do not punch the marks.

    b. Using a plastic-faced hammer, disconnect the steering knuckle with axle hub.

    **NOTE:** Be careful not to damage the boot and speed sensor rotor.
Do not excessively push out the drive shaft from the axle assembly.

**Fig. 4: Putting Matchmarks On Drive Shaft And Axle Hub**

**Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.**

13. **DISCONNECT STEERING KNUCKLE WITH AXLE HUB RH**

   **HINT:**

   Use the same procedures described for the LH side.

14. **DISCONNECT TIE ROD END SUB-ASSEMBLY LH (See REMOVAL )**

15. **DISCONNECT TIE ROD END SUB-ASSEMBLY RH**

   **HINT:**

   Use the same procedures described for the LH side.

16. **REMOVE FRONT DRIVE SHAFT ASSEMBLY LH**

   a. Using SST, remove the front drive shaft.

   **SST 09520-01010, 09520-24010 (09520-32040)**
17. REMOVE FRONT DRIVE SHAFT ASSEMBLY RH
   a. Remove the 2 bolts and pull out the drive shaft together with the drive shaft bearing case.
   b. Remove the drive shaft from the transaxle.

   NOTE:
   - Be careful not to damage the transaxle case oil seal, inboard joint boot and drive shaft dust cover.
   - Be careful not to drop the drive shaft.
18. FIX FRONT AXLE ASSEMBLY

NOTE: 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, if it is absolutely necessary to place the vehicle weight on the hub bearing, first support it with SST. SST 09608-16042 (09608-02021, 09608-02041)
Fig. 7: Fixing Front Axle Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

DISASSEMBLY

1. REMOVE FRONT AXLE INBOARD JOINT BOOT NO. 2 CLAMP
   a. One touch type:

      Using a screwdriver, remove the inboard joint boot clamp, as shown in the illustration.

   b. Claw engagement type:

      Using needle-nose pliers, remove the inboard joint boot clamp, as shown in the illustration.
One Touch Type

Claw Engagement Type

Fig. 8: Removing Inboard Joint Boot Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
2. **REMOVE FRONT AXLE INBOARD JOINT BOOT CLAMP**
   a. One touch type:
      
      Using a screwdriver, remove the inboard joint boot clamp, as shown in the illustration.

   b. Claw engagement type:
      
      Using needle-nose pliers, remove the inboard joint boot clamp, as shown in the illustration.

3. **REMOVE FRONT AXLE INBOARD JOINT BOOT**
   a. Remove the boot from the inboard joint.
One Touch Type

Claw Engagement Type

Fig. 9: Removing Inboard Joint Boot Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
4. **REMOVE FRONT DRIVE INBOARD JOINT ASSEMBLY LH**
   
a. Remove any old grease from the inboard joint.
   
b. Put matchmarks on the inboard joint and outboard joint shaft.
   
   **NOTE:** Do not punch the marks.
   
c. Remove the inboard joint from the outboard joint shaft.
   
d. Using a snap ring expander, remove the shaft snap ring.

[Fig. 10: Putting Matchmarks On Inboard Joint And Outboard Joint Shaft](#) Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

e. Put matchmarks on the outboard joint shaft and tripod joint.
f. Using a brass bar and hammer, tap out the tripod joint from the outboard joint shaft.

**NOTE:** Do not punch the marks.

**NOTE:** Do not tap the rollers.

g. Remove the inboard joint boot.
Fig. 12: Removing Inboard Joint Boot
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. REMOVE FRONT DRIVE INBOARD JOINT ASSEMBLY RH

HINT:

Use the same procedures described for the LH side.

6. REMOVE FRONT DRIVE SHAFT DAMPER CLAMP LH
   a. One touch type:

   Using a screwdriver, remove the drive shaft damper clamp, as shown in the illustration.

   b. Claw engagement type:

   Using needle-nose pliers, remove the drive shaft damper clamp, as shown in the illustration.

7. REMOVE FRONT DRIVE SHAFT DAMPER LH
   a. Remove the front drive shaft damper from the outboard joint shaft.
Fig. 13: Removing Drive Shaft Damper Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
8. **REMOVE FRONT AXLE OUTBOARD JOINT BOOT NO. 2 CLAMP**  
   a. Using a screwdriver, remove the outboard joint boot clamp, as shown in the illustration.

   ![Removing Outboard Joint Boot Clamp](image)

   *Fig. 14: Removing Outboard Joint Boot Clamp  
   Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.*

9. **REMOVE FRONT AXLE OUTBOARD JOINT BOOT CLAMP**  
   a. Using a screwdriver, remove the outboard joint boot clamp, as shown in the illustration.

10. **REMOVE FRONT AXLE OUTBOARD JOINT BOOT**  
    a. Remove the outboard joint boot from the outboard joint shaft.  
    b. Remove any old grease from the outboard joint.
11. **REMOVE FRONT DRIVE SHAFT HOLE SNAP RING LH**
   a. Using a screwdriver, remove the hole snap ring.
12. **REMOVE FRONT DRIVE SHAFT DUST COVER LH**
   a. Using SST and a press, press out the shaft dust cover.

   **SST 09950-00020**

   **NOTE:** Be careful not to drop the inboard joint.

13. **REMOVE FRONT DRIVE SHAFT DUST COVER RH**

    **HINT:**

    Use the same procedures described for the LH side.

14. **REMOVE DRIVE SHAFT BEARING CASE (for RH)**
   a. Using a screwdriver, remove the bearing case snap ring.
Fig. 17: Pressing Out Shaft Dust Cover
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. Using a press, press out the drive shaft bearing case.
Fig. 18: Removing Bearing Case Snap Ring
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

HINT:

Be careful not to drop the inboard joint.
Fig. 19: Pressing Out Drive Shaft Bearing Case
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

15. REMOVE FRONT DRIVE SHAFT DUST COVER (for RH)
   a. Using SST and a press, press out the drive shaft dust cover.

   SST 09950-00020

   NOTE: Be careful not to drop the inboard joint.
16. **REMOVE FRONT DRIVE SHAFT BEARING**
   a. Using a snap ring expander, remove the snap ring.
b. Using SST and a press, press out the drive shaft bearing.

SST 09527-10011

c. Remove the bearing case snap ring.
Fig. 22: Removing Bearing Case Snap Ring
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REASSEMBLY

1. INSTALL DRIVE SHAFT BEARING CASE SUBASSEMBLY (for RH)
   a. Install the bearing snap ring.
   b. Using SST and a press, press in the drive shaft bearing case to the inboard joint RH.

   SST 09527-10011, 09710-04081

   NOTE: The bearing should be installed completely.
c. Using a snap ring expander, install a new snap ring.
2. INSTALL FRONT DRIVE SHAFT DUST COVER (for RH)

   SST 09726-40010, 09527-10011

   Standard dust cover depth::

   1 mm (0.04 in.)

   NOTE: Be careful not to damage the dust cover.
3. **INSTALL FRONT DRIVE SHAFT DUST COVER RH**
   
   a. Using SST and a press, press in a new drive shaft dust cover until the distance from the tip of the center drive shaft to the drive shaft dust cover reaches the specification, as shown.
Fig. 26: Installing Front Drive Shaft Dust Cover RH
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

SST 09527-10011

Standard distance

<table>
<thead>
<tr>
<th>Item</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2AZ-FE</td>
<td>91.0 to 92.0 mm (3.583 to 3.622 in.)</td>
</tr>
<tr>
<td>2GR-FE</td>
<td>110 to 111 mm (4.330 to 4.370 in.)</td>
</tr>
</tbody>
</table>

**NOTE:** Be careful not to damage the dust cover.

4. **INSTALL FRONT DRIVE SHAFT DUST COVER LH**

SST 09527-10011
5. **INSTALL FRONT DRIVE SHAFT HOLE SNAP RING LH**
   a. Install a new hole snap ring.

6. **INSTALL FRONT AXLE OUTBOARD JOINT BOOT**

   **HINT:**

   Before installing the boots, wrap the spline of the drive shaft with vinyl tape to prevent the boots from being damaged.

**NOTE:**
- The dust cover should be installed so that the drive shaft contacts the dust cover at the location indicated by the arrows in the illustration.
- Be careful not to damage the dust cover.
Fig. 28: Wrapping Spline Of Drive Shaft With Vinyl Tape
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Install new parts to the outboard joint shaft in the following order.
   1. Outboard joint boot No. 2 clamp
   2. Outboard joint boot
   3. Outboard joint boot clamp
b. Pack the outboard joint shaft and boot with grease from the boot kit.

Standard grease capacity

<table>
<thead>
<tr>
<th>Item</th>
<th>Grease capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2AZ-FE</td>
<td>190 to 200 g (6.7 to 7.1 oz.)</td>
</tr>
<tr>
<td>2GR-FE</td>
<td>205 to 215 g (7.2 to 7.6 oz.)</td>
</tr>
</tbody>
</table>

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

   CAUTION: Wear protective gloves while performing the operation and be careful to avoid cutting your hands or other body parts.
a. Install a new boot clamp to the outboard joint boot and temporarily bend the lever.

**NOTE:**

- When temporarily bending the lever, make sure not to deform the band and lever.
- Set the clamp correctly in the guide groove and align it with the interior of the vehicle as much as possible.

![Fig. 29: Installing Front Axle Outboard Joint Boot No. 2 Clamp](image)

**Fig. 29: Installing Front Axle Outboard Joint Boot No. 2 Clamp**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

b. With the joint on the working surface, use your body weight to press down on the joint with one hand. Then, roll the joint forward, as shown in Fig. 30, and press the lever in until a "click" sound is heard.

**NOTE:**

- Do not damage the deflector.
- Make sure the joint is in full contact with the joint surface at all times.
c. Using a plastic-faced hammer, fix the buckle into place by tapping it. At the same time, use the...
plastic-faced hammer to adjust the lift of the lever so that the gaps between the buckle flange and lever end flange become even.

**NOTE:** Do not damage the boot.
Fig. 31: Using A Plastic-Faced Hammer, Fix Buckle Into Place By Tapping
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
8. INSTALL FRONT AXLE OUTBOARD JOINT BOOT CLAMP

   **CAUTION:** Wear protective gloves while performing the operation and be careful to avoid cutting your hands or other body parts.

   a. Install a new boot clamp to the outboard joint boot and temporarily bend the lever.

   **NOTE:** When temporarily bending the lever, make sure not to deform the band and lever.

   b. Using water pump pliers, temporarily lock the boot clamp by clamping it down until a "click" sound is heard.
c. Using a plastic-faced hammer, fix the buckle into place by tapping it. At the same time, use the
plastic-faced hammer to adjust the lift of the lever so that the gaps between the buckle flange and lever end flange become even.

**NOTE:** Do not strike the drive shaft forcefully with the plastic-faced hammer.
9. INSTALL FRONT DRIVE SHAFT DAMPER LH (for LH)

Fig. 34: Measuring Gaps Between Buckle Flange And Lever End Flange
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
a. Install a new drive shaft damper clamp and the drive shaft damper to the drive shaft.

HINT:

Install the damper clamp to outboard joint side.

b. Set the distance, as described below.

**Standard distance:**

161 to 165 mm (6.339 to 6.496 in.)
Fig. 35: Installing Front Drive Shaft Damper LH (For LH)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

10. INSTALL FRONT DRIVE SHAFT DAMPER CLAMP LH (for LH)
   a. Hold the front drive shaft lightly in a soft vise.
b. Install the drive shaft damper clamp to the damper.

   **NOTE:** Be sure to install the clamp in the correct position.

c. One touch type:

   Using a screwdriver, install the drive shaft damper clamp, as shown in the illustration.

d. Claw engagement type:

   Using needle-nose pliers, install the drive shaft damper clamp, as shown in the illustration.
Fig. 36: Installing Drive Shaft Damper Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
11. INSTALL FRONT DRIVE INBOARD JOINT ASSEMBLY LH

   a. Wrap the spline of the outboard joint shaft with vinyl tape to prevent the boots from being damaged.

   b. Install new parts to the outboard joint shaft in the following order.
      1. Inboard joint boot clamp
      2. Inboard joint boot No. 2 clamp
      3. Inboard joint boot

   c. Place the beveled side of the tripod axial spline toward the outboard joint.

   d. Align the matchmarks placed before removal.

   e. Using a brass bar and hammer, tap the tripod joint onto the drive shaft.

   NOTE:
   - Do not tap the rollers.
   - Be sure to install the tripod joint in the correct direction.

   f. Pack the inboard joint shaft and boot with grease from the boot kit.

   Standard grease capacity:

   Fig. 37: Aligning Matchmarks, And Installing Inboard Joint To Outboard Joint Shaft
   Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
175 to 185 g (6.2 to 6.5 oz.)

g. Using a snap ring expander, install a new shaft snap ring.

h. Align the matchmarks, and install the inboard joint to the outboard joint shaft.

12. INSTALL FRONT DRIVE INBOARD JOINT ASSEMBLY RH

HINT:

Use the same procedures described for the LH side.

13. INSTALL FRONT AXLE INBOARD JOINT BOOT

   a. Install the inboard joint boot to the inboard joint.

14. INSTALL FRONT AXLE INBOARD JOINT BOOT CLAMP

   a. One touch type:

      Using a screwdriver, install the inboard joint boot clamp, as shown in Fig. 39.

      **NOTE:** Be careful not to damage the boot.
b. Claw engagement type:

Using needle-nose pliers, install the inboard joint boot clamp, as shown in the illustration.

**NOTE:** Be careful not to damage the boot.
One Touch Type

Claw Engagement Type

Fig. 39: Installing Inboard Joint Boot Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
15. INSTALL FRONT AXLE INBOARD JOINT BOOT NO. 2 CLAMP
   a. One touch type:

   Using a screwdriver, install the No. 2 inboard joint boot clamp, as shown in Fig. 40.

   **NOTE:** Be careful not to damage the boot.

   b. Claw engagement type:

   Using needle-nose pliers, install the No. 2 inboard joint boot clamp, as shown in the illustration.

   **NOTE:** Be careful not to damage the boot.
One Touch Type

Claw Engagement Type

Claw Part

Fig. 40: Installing No. 2 Inboard Joint Boot Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
16. **INSPECT FRONT DRIVE SHAFT**
   a. Check that there is no severe play in the radial direction of the outboard joint.
   b. Check that the inboard joint slides smoothly in the thrust direction.
   c. Check that there is no severe play in the radial direction of the inboard joint.

d. Check the boots for damage.

   **NOTE:** Keep the drive shaft assembly level during inspection.

   **HINT:**

   For dimension (A), refer to the following values.

   ![Fig. 41: Inspecting Front Drive Shaft](image)
Fig. 42: Inspecting Front Drive Shaft Measuring A
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard reference value

<table>
<thead>
<tr>
<th>Item</th>
<th>Drive shaft LH (Dimension)</th>
<th>Drive shaft RH (Dimension)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2AZ-FE</td>
<td>585.2 mm (23.039 in.)</td>
<td>902.0 mm (35.512 in.)</td>
</tr>
<tr>
<td>2GR-FE</td>
<td>570.9 mm (22.476 in.)</td>
<td>914.4 mm (36.000 in.)</td>
</tr>
</tbody>
</table>

INSTALLATION

1. INSTALL FRONT DRIVE SHAFT ASSEMBLY LH
   a. Coat the spline of the inboard joint shaft with gear oil.
   b. Align the shaft splines and tap in the drive shaft with a brass bar and hammer.

   NOTE:
   - Set the snap ring with the opening side facing downwards.
   - Be careful not to damage the oil seal, boot and dust cover.
2. INSTALL FRONT DRIVE SHAFT ASSEMBLY RH
   a. Coat the spline of the inboard joint shaft with gear oil.
   b. Align the shaft splines and securely insert the drive shaft.
   c. Install the 2 bearing bracket bolts.

   Torque: 63.7 N*m (650 kgf*cm, 47 ft.*lbf)

   NOTE: Do not damage the oil seal, boot and dust cover.
3. **CONNECT STEERING KNUCKLE WITH AXLE HUB LH**
   a. Align the shaft splines in the drive shaft to the steering knuckle with axle hub, and connect the steering knuckle with axle hub.
4. CONNECT STEERING KNUCKLE WITH AXLE HUB RH

HINT:
Use the same procedures described for the LH side.

5. CONNECT FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY LH (See appropriate step(s) under INSTALLATION )

6. CONNECT FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY RH

HINT:
Use the same procedures described for the LH side.

7. INSTALL FRONT STABILIZER LINK ASSEMBLY LH (See appropriate step(s) under INSTALLATION )

8. INSTALL FRONT STABILIZER LINK ASSEMBLY RH

HINT:
Use the same procedures described for the LH side.

9. CONNECT TIE ROD END SUB-ASSEMBLY LH (See INSTALLATION)
10. CONNECT TIE ROD END SUB-ASSEMBLY RH

HINT:

Use the same procedures described for the LH side.

11. CONNECT FRONT SPEED SENSOR LH
    a. Connect the speed sensor (see INSTALLATION).
12. INSTALL FRONT SPEED SENSOR RH

HINT:

Use the same procedures described for the LH side.

13. INSTALL FRONT AXLE HUB NUT (See appropriate step(s) under INSTALLATION)
14. INSTALL FRONT WHEEL

Torque: 103 N*m (1,050 kgf*cm, 76 ft.*lbf)

15. ADD AUTOMATIC TRANSAXLE FLUID
    a. Add automatic transaxle fluid for U140F (see appropriate step(s) under INSTALLATION).
    b. Add automatic transaxle fluid for U241E (see appropriate step(s) under INSTALLATION).
    c. Add automatic transaxle fluid for U151E (see appropriate step(s) under INSTALLATION).
16. CHECK FOR AUTOMATIC TRANSAXLE OIL LEAKAGE
17. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT
    a. Inspect and adjust the front wheel alignment (see FRONT WHEEL ALIGNMENT).

FRONT DRIVE SHAFT ASSEMBLY (FOR 4WD)

COMPONENTS
Fig. 46: Identifying Front Drive Shaft Assembly Components & Torque Specifications (4WD) (1 Of 2)

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
Fig. 47: Identifying Front Drive Shaft Assembly Components & Torque Specifications (4WD) (2 Of 2)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
Fig. 48: Identifying Front Drive Shaft Assembly Components (4WD)
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

REMOVAL
1. **REMOVE FRONT WHEEL**

2. **DRAIN AUTOMATIC TRANSAXLE FLUID**
   a. Drain the automatic transaxle fluid for U140F (see **REMOVAL**).
   b. Drain the automatic transaxle fluid for U241E (see **REMOVAL**).
   c. Drain the automatic transaxle fluid for U151F (see **REMOVAL**).

3. **REMOVE FRONT AXLE HUB NUT** (See appropriate step(s) under **INSTALLATION**)

4. **DISCONNECT FRONT SPEED SENSOR LH** (See **REMOVAL**)

5. **DISCONNECT FRONT SPEED SENSOR RH**
   
   **HINT:**

   Use the same procedures described for the LH side.

6. **DISCONNECT FRONT DISC BRAKE CYLINDER ASSEMBLY LH** (See **REMOVAL**)

7. **DISCONNECT FRONT DISC BRAKE CYLINDER ASSEMBLY RH**
   
   **HINT:**

   Use the same procedures described for the LH side.

8. **DISCONNECT FRONT STABILIZER LINK ASSEMBLY LH** (See **REMOVAL**)

9. **DISCONNECT FRONT STABILIZER LINK ASSEMBLY RH**

10. **DISCONNECT FRONT SUSPENSION LOWER NO. 1 ARM SUB-ASSEMBLY LH** (See **REMOVAL**)

11. **DISCONNECT FRONT SUSPENSION LOWER NO. 1 ARM SUB-ASSEMBLY RH**
   
   **HINT:**

   Use the same procedures described for the LH side.

12. **DISCONNECT STEERING KNUCKLE WITH AXLE HUB LH**
   a. Put matchmarks on the drive shaft and axle hub.

   **NOTE:** Do not punch the marks.
b. Using a plastic-faced hammer, disconnect the steering knuckle with axle hub.

**NOTE:** Be careful not to damage the boot and speed sensor rotor. Do not excessively push out the drive shaft from the axle assembly.

13. **DISCONNECT STEERING KNUCKLE WITH AXLE HUB RH**

   **HINT:**

   Use the same procedures described for the LH side.

14. **DISCONNECT TIE ROD END SUB-ASSEMBLY LH (See REMOVAL)**

15. **DISCONNECT TIE ROD END SUB-ASSEMBLY RH**

   **HINT:**

   Use the same procedures described for the LH side.

16. **REMOVE FRONT DRIVE SHAFT ASSEMBLY LH**
a. Using SST, remove the front drive shaft.

SST 09520-01010, 09520-24010 (09520-32040)

**NOTE:**
- Be careful not to damage the transaxle case oil seal, inboard joint boot and drive shaft dust cover.
- Be careful not to drop the drive shaft.

**NOTE:**
- Be careful not to damage the oil seal.
- Do not damage the boot.
- Do not allow the drive shaft to fall off.

---

**Fig. 50: Removing Front Drive Shaft**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

17. **REMOVE FRONT DRIVE SHAFT ASSEMBLY RH**
   a. Squeeze the ends of the snap ring, and remove the snap ring from the bearing bracket.
   b. Remove the bearing bracket bolt and remove the front drive shaft from the bearing bracket.

**NOTE:**
- Do not damage the oil seal.
- Do not damage the boot.
- Do not allow the drive shaft to fall off.
Fig. 51: Removing Front Drive Shaft Assembly RH
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

HINT:

If the connection is stiff, use a brass bar and hammer to lightly tap the edge of the inboard joint RH and remove it.

18. FIX FRONT AXLE ASSEMBLY

NOTE: 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, if it is absolutely necessary to place the vehicle weight on the hub bearing, first support it with SST. SST 09608-16042 (09608-02021, 09608-02041)
Fig. 52: Supporting Front Axle Assembly
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

DISASSEMBLY

1. REMOVE FRONT AXLE INBOARD JOINT BOOT NO. 2 CLAMP
   a. One touch type:

      Using a screwdriver, remove the No. 2 inboard joint boot clamp, as shown in Fig. 53.

   b. Claw engagement type:

      Using needle-nose pliers, remove the No. 2 inboard joint boot clamp, as shown.
One Touch Type

Claw Engagement Type

Fig. 53: Removing Front Axle Inboard Joint Boot No. 2 Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
2. REMOVE FRONT AXLE INBOARD JOINT BOOT CLAMP
   a. One touch type:

      Using a screwdriver, remove the inboard joint boot clamp, as shown in Fig. 54.

   b. Claw engagement type:

      Using needle-nose pliers, remove the inboard joint boot clamp, as shown.
One Touch Type

Claw Engagement Type

Fig. 54: Removing Front Axle Inboard Joint Boot Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
3. **REMOVE FRONT AXLE INBOARD JOINT BOOT**
   a. Remove the boot from the inboard joint.

4. **REMOVE FRONT DRIVE INBOARD JOINT ASSEMBLY LH**
   a. Remove any old grease from the inboard joint.
   b. Put matchmarks on the inboard joint and outboard joint shaft, see **Fig. 55**.

   **NOTE:** Do not punch the marks.

   c. Remove the inboard joint from the outboard joint shaft.

   ![Matchmark](image)

   **Fig. 55: Putting Matchmarks On Inboard Joint And Outboard Joint Shaft**
   Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   d. Using a snap ring expander, remove the shaft snap ring.
Fig. 56: Removing Shaft Snap Ring Using Snap Ring Expander
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

e. Put matchmarks on the outboard joint shaft and tripod joint.
f. Using a brass bar and hammer, tap out the tripod joint from the outboard joint shaft.

**NOTE:** Do not tap the rollers.

5. **REMOVE FRONT DRIVE SHAFT INBOARD JOINT ASSEMBLY RH**

**HINT:**

Use the same procedures described for the LH side.

6. **REMOVE FRONT DRIVE SHAFT DAMPER CLAMP LH**

a. One touch type:

Using a screwdriver, remove the drive shaft damper clamp, as shown in **Fig. 58**.

b. Claw engagement type:
Using needle-nose pliers, remove the drive shaft damper clamp, as shown.

One Touch Type

Claw Engagement Type

Claw Part
7. REMOVE FRONT DRIVE SHAFT DAMPER LH
   a. Remove the front drive shaft damper.

8. REMOVE FRONT DRIVE SHAFT DAMPER CLAMP RH

   HINT:
   Use the same procedures described for the LH side.

9. REMOVE FRONT DRIVE SHAFT DAMPER RH

   HINT:
   Use the same procedures described for the LH side.

10. REMOVE FRONT AXLE OUTBOARD JOINT BOOT NO. 2 CLAMP
    a. Using a screwdriver, remove the No. 2 outboard joint boot clamp, as shown.

11. REMOVE FRONT AXLE OUTBOARD JOINT BOOT CLAMP
    a. Using a screwdriver, remove the outboard joint boot clamp, as shown in the illustration.
Fig. 60: Removing Front Axle Outboard Joint Boot Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

12. **REMOVE FRONT AXLE OUTBOARD JOINT BOOT**
   a. Remove the outboard joint boot from the outboard joint shaft.
   b. Remove any old grease from the outboard joint.

13. **REMOVE FRONT DRIVE SHAFT HOLE SNAP RING LH**
   a. Using a screwdriver, remove the hole snap ring.
14. REMOVE FRONT DRIVE SHAFT DUST COVER LH
   a. Using SST and a press, press out the front drive shaft dust cover.

   SST 09950-00020

   NOTE: Be careful not to drop the inboard joint.
15. REMOVE FRONT DRIVE SHAFT DUST COVER RH

HINT:

Use the same procedures described for the LH side, see Fig. 62.

16. REMOVE FRONT DRIVE SHAFT BEARING (for RH)
   a. Using a snap ring expander, remove the drive shaft hole snap ring.
b. Using SST and a press, press out the drive shaft bearing.
c. Remove the bearing bracket snap ring.

REASSEMBLY

1. INSTALL FRONT DRIVE SHAFT BEARING (for RH)
   a. Install the bearing bracket snap ring to the inboard shaft.
   b. Using SST and a press, press in the drive shaft bearing to the inboard joint RH.
Fig. 65: Pressing In Drive Shaft Bearing To Inboard Joint RH  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

SST 09527-10011, 09710-04081

NOTE: The bearing should be installed completely.

- Using a snap ring expander, install a new drive shaft hole snap ring.
2. REMOVE FRONT DRIVE SHAFT DUST COVER RH
   a. Using SST and a press, press in a new drive shaft dust cover until the distance from the tip of the center drive shaft to the drive shaft dust cover reaches the specification, as shown in the illustration.

   SST 09527-10011

   Standard distance:

   104 ±0.5 mm (4.09 ±0.02 in.)

   NOTE: Be careful not to damage the dust cover.
3. **INSTALL FRONT DRIVE SHAFT DUST COVER LH**

SST 09527-10011

NOTE:
- The dust cover should be installed so that the drive shaft contacts the dust cover at the location indicated by the arrows in the illustration.
- Be careful not to damage the dust cover.

4. INSTALL FRONT DRIVE SHAFT HOLE SNAP RING LH
   a. Install a new hole snap ring.

![Diagram of SST and dust cover](image)

Fig. 68: Installing Front Drive Shaft Hole Snap Ring LH
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. INSPECT FRONT DRIVE SHAFT
6. INSTALL FRONT AXLE OUTBOARD JOINT BOOT

HINT:
Before installing the boots, wrap the spline of the drive shaft with vinyl tape to prevent the boots from being damaged.
Fig. 69: Wrapping Spline Of Drive Shaft With Vinyl Tape
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

a. Install new parts to the outboard joint shaft in the following order.
   1. Outboard joint boot No. 2 clamp
   2. Outboard joint boot
   3. Outboard joint boot clamp
b. Pack the outboard joint shaft and boot with grease from the boot kit.

Standard grease capacity

<table>
<thead>
<tr>
<th>Item</th>
<th>Grease capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2AZ-FE</td>
<td>190 to 200 g (6.7 to 7.1 oz.)</td>
</tr>
<tr>
<td>2GR-FE</td>
<td>205 to 215 g (7.2 to 7.6 oz.)</td>
</tr>
</tbody>
</table>

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

CAUTION: Wear protective gloves while performing the operation and be careful to avoid cutting your hands or other body parts.
a. Install a new boot clamp to the outboard joint boot and temporarily bend the lever.

![Fig. 70: Installing Front Axle Outboard Joint Boot No. 2 Clamp](image)

**NOTE:**
- When temporarily bending the lever, make sure not to deform the band and lever.
- Set the clamp correctly in the guide groove and align it with the interior of the vehicle as much as possible.

b. With the joint on the working surface, use your body weight to press down on the joint with one hand.

Then, roll the joint forward, as shown in the illustration, and press the lever in until a "click" sound is heard.
Fig. 71: Rolling Joint Forward Over Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
c. Using a plastic-faced hammer, fix the buckle into place by tapping it. At the same time, use the plastic-faced hammer to adjust the lift of the lever so that the gaps between the buckle flange and lever end flange become even.

- Do not damage the deflector.
- Make sure the joint is in full contact with the joint surface at all times.
Fig. 72: Using A Plastic-Faced Hammer, Fix Buckle Into Place By Tapping
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
8. INSTALL FRONT AXLE OUTBOARD JOINT BOOT CLAMP

**CAUTION:** Wear protective gloves while performing the operation and be careful to avoid cutting your hands or other body parts.

a. Install a new boot clamp to the outboard joint boot and temporarily bend the lever.

**NOTE:** When temporarily bending the lever, make sure not to deform the band and lever.

b. Using water pump pliers, temporarily lock the boot clamp by clamping it down until a "click" sound is heard.
c. Using a plastic-faced hammer, fix the buckle into place by tapping it. At the same time, use the
plastic-faced hammer to adjust the lift of the lever so that the gaps between the buckle flange and lever end flange become even.

**NOTE:** Do not strike the drive shaft forcefully with the plastic-faced hammer.
Fig. 75: Using A Plastic-Faced Hammer, Fix Buckle Into Place By Tapping
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

9. INSTALL FRONT DRIVE SHAFT DAMPER LH
a. Install a new drive shaft damper clamp and the drive shaft damper to the drive shaft.

HINT:
Install the damper clamp to the outboard joint side.

b. Set the distance, as described below.

**Standard distance:**

161 to 165 mm (6.339 to 6.496 in.)
10. **INSTALL FRONT DRIVE SHAFT DAMPER CLAMP LH**
   
a. Hold the front drive shaft lightly in a soft vise.
b. Install the drive shaft damper clamp to the damper.

**NOTE:** Be sure to install the clamp in the correct position.

c. One touch type:

Using a screwdriver, install the drive shaft damper clamp, as shown.
Fig. 77: Installing Front Drive Shaft Damper Clamp LH
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
d. Claw engagement type:

Using needle-nose pliers, install the drive shaft damper clamp, as shown in the illustration.

11. INSTALL FRONT DRIVE SHAFT DAMPER RH

HINT:

Use the same procedures described for the LH side.

12. INSTALL FRONT DRIVE SHAFT DAMPER CLAMP RH

HINT:

Use the same procedures described for the LH side.

13. INSTALL FRONT DRIVE INBOARD JOINT ASSEMBLY LH

   a. Wrap the spline of the outboard joint shaft with vinyl tape to prevent the boots from being damaged.

   b. Install new parts to the outboard joint shaft in the following order.
      1. Inboard joint boot clamp
      2. Inboard joint boot No. 2 clamp
      3. Inboard joint boot

   c. Place the beveled side of the tripod axial spline toward the outboard joint.

   d. Align the matchmarks placed before removal.

   e. Using a brass bar and hammer, tap the tripod joint onto the drive shaft.

   NOTE:
   - Do not tap the rollers.
   - Be sure to install the tripod joint in the correct direction.

   f. Pack the inboard joint shaft and boot with grease from the boot kit.

   Standard grease capacity:

   175 to 185 g (6.2 to 6.5 oz.)

   g. Using a snap ring expander, install a new shaft snap ring.
h. Align the matchmarks, and install the inboard joint to the outboard joint shaft.
14. INSTALL FRONT DRIVE INBOARD JOINT ASSEMBLY RH

HINT:

Use the same procedures described for the LH side.

15. INSTALL FRONT AXLE INBOARD JOINT BOOT

a. Install the inboard joint boot to the inboard joint.

16. INSTALL FRONT AXLE INBOARD JOINT BOOT CLAMP

a. One touch type:

Using a screwdriver, install the inboard joint boot clamp, as shown in Fig. 80.

**NOTE:** Be careful not to damage the boot.

b. Claw engagement type:

Using needle-nose pliers, install the inboard joint boot clamp, as shown.
NOTE: Be careful not to damage the boot.

One Touch Type

Claw Engagement Type
Fig. 80: Installing Front Axle Inboard Joint Boot Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

17. INSTALL FRONT AXLE INBOARD JOINT BOOT NO. 2 CLAMP
   a. One touch type:

   Using a screwdriver, install the No. 2 inboard joint boot clamp, as shown in Fig. 81.

   **NOTE:** Be careful not to damage the boot.

   b. Claw engagement type:

   Using needle-nose pliers, install the No. 2 inboard joint boot clamp, as shown.

   **NOTE:** Be careful not to damage the boot.
One Touch Type

Claw Engagement Type

Fig. 81: Installing Front Axle Inboard Joint Boot No. 2 Clamp
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
18. **INSPECT FRONT DRIVE SHAFT**
   a. Check that there is no severe play in the radial direction of the outboard joint.
   b. Check that the inboard joint slides smoothly in the thrust direction.
   c. Check that there is no severe play in the radial direction of the inboard joint.

   ![Diagram of front drive shaft]

   **Fig. 82: Inspecting Operation Of Front Drive Shaft**
   Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

   d. Check the boots for damage.

   **NOTE:** Keep the drive shaft assembly level during inspection.

   **HINT:**

   For dimension (A), refer to the following values.
Fig. 83: Measuring Dimension (A)  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Standard reference value

<table>
<thead>
<tr>
<th>Item</th>
<th>Drive shaft LH (Dimension)</th>
<th>Drive shaft RH (Dimension)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2AZ-FE</td>
<td>585.2 mm (23.039 in.)</td>
<td>893.9 mm (35.193 in.)</td>
</tr>
<tr>
<td>2GR-FE</td>
<td>570.9 mm (22.476 in.)</td>
<td>922.4 mm (36.315 in.)</td>
</tr>
</tbody>
</table>

INSTALLATION

1. INSTALL FRONT DRIVE SHAFT ASSEMBLY LH
   a. Coat the spline of the inboard joint shaft with gear oil.
   b. Align the shaft splines and tap in the drive shaft with a brass bar and hammer.

NOTE:
- Set the snap ring with the opening side facing downwards.
- Be careful not to damage the oil seal, boot and dust cover.
2. INSTALL FRONT DRIVE SHAFT ASSEMBLY RH
   a. Coat the spline of the inboard joint shaft with gear oil.
   b. Align the shaft splines and securely insert the drive shaft.

   NOTE: Do not damage the oil seal.

   c. Squeeze the ends of the bracket hole snap ring and install it to the bearing bracket.
   d. Install the bearing bracket bolt.

   Torque: 32.4 N*m (330 kgf*cm, 24 ft.*lbf)
3. CONNECT STEERING KNUCKLE WITH AXLE HUB LH
   a. Align the shaft splines in the drive shaft to the steering knuckle with axle hub, and connect the steering knuckle with axle hub.
4. CONNECT STEERING KNUCKLE WITH AXLE HUB RH

HINT:

Use the same procedures described for the LH side.

5. CONNECT FRONT SUSPENSION LOWER NO. 1 ARM SUB-ASSEMBLY LH (See appropriate step(s) under INSTALLATION)

6. CONNECT FRONT SUSPENSION LOWER NO. 1 ARM SUB-ASSEMBLY RH

HINT:

Use the same procedures described for the LH side.

7. INSTALL FRONT STABILIZER LINK ASSEMBLY LH (See appropriate step(s) under INSTALLATION)

8. INSTALL FRONT STABILIZER LINK ASSEMBLY RH

HINT:
Use the same procedures described for the LH side.

9. INSTALL TIE ROD END SUB-ASSEMBLY LH (See INSTALLATION)
10. INSTALL TIE ROD END SUB-ASSEMBLY RH

HINT:

Use the same procedures described for the LH side.

11. CONNECT FRONT SPEED SENSOR LH
   a. Connect the speed sensor (see INSTALLATION).
12. CONNECT FRONT SPEED SENSOR RH

HINT:

Use the same procedures described for the LH side.

13. INSTALL FRONT AXLE HUB NUT (See appropriate step(s) under INSTALLATION)
14. INSTALL FRONT WHEEL

   Torque: 103 N*m (1,050 kgf*cm, 76 ft.*lbf)

15. ADD AUTOMATIC TRANSAXLE FLUID
   a. Add automatic transaxle fluid for U140F (see appropriate step(s) under INSTALLATION).
   b. Add automatic transaxle fluid for U241E (see appropriate step(s) under INSTALLATION).
   c. Add automatic transaxle fluid for U151E (see appropriate step(s) under INSTALLATION).

16. CHECK FOR AUTOMATIC TRANSAXLE FLUID LEAKAGE
17. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT
   a. Inspect and adjust the front wheel alignment (see FRONT WHEEL ALIGNMENT).

REAR DRIVE SHAFT ASSEMBLY

COMPONENTS
REMOVAL

HINT:

- Use the same procedures for the RH side and LH side.
The procedures listed below are for the LH side.

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**

   **CAUTION:** Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.

2. **DRAIN DIFFERENTIAL OIL (See REMOVAL )**
3. **REMOVE REAR WHEEL**
4. **REMOVE TAILPIPE ASSEMBLY (See REMOVAL )**
5. **REMOVE CENTER EXHAUST PIPE ASSEMBLY (See REMOVAL )**
6. **REMOVE PROPELLER WITH CENTER BEARING SHAFT ASSEMBLY (See REMOVAL )**
7. **REMOVE REAR AXLE SHAFT NUT (See REMOVAL )**
8. **DISCONNECT DIFFERENTIAL CARRIER ASSEMBLY**
   a. Support the rear differential carrier with a transmission jack or equivalent.
Fig. 88: Supporting Rear Differential Carrier
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
b. Fix the nuts in place and remove bolt A, bolt B and bolt C.

   **NOTE:** Do not loosen the nuts. Loosen the bolts.

c. Slowly lower the jack and then tilt the rear differential carrier as shown.

![Fig. 89: Lowering Jack And Tilting Rear Differential Carrier](image.jpg)

**Fig. 89: Lowering Jack And Tilting Rear Differential Carrier**
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

d. Set the tip of the tire lever to the position on the rear drive shaft inboard joint shown in the illustration. Then, using the ribbed part of the rear differential carrier as a fulcrum, disconnect the left and right rear drive shafts.

   **NOTE:** Do not scratch the rear drive shaft dust cover.
9. DISCONNECT SKID CONTROL SENSOR WIRE (for 2WD) (See appropriate step(s) under REMOVAL )

10. DISCONNECT REAR SPEED SENSOR LH (for 4WD) (See appropriate step(s) under REMOVAL )

11. REMOVE REAR DRIVE SHAFT ASSEMBLY LH
   a. Put matchmarks on the drive shaft and the axle hub.
b. Using a plastic-faced hammer, separate the drive shaft from the axle hub.

NOTE: Be careful not to damage the boot and speed sensor rotor. Do not excessively push out the drive shaft from the axle.

12. FIX REAR DRIVE SHAFT ASSEMBLY

NOTE: 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, if it is absolutely necessary to place the vehicle weight on the hub bearing, first support it with SST.

SST 09608-16042 (09608-02021, 09608-02041)
**Fig. 92: Supporting Rear Drive Shaft Hub Bearing**
*Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.*

**DISASSEMBLY**

**HINT:**
- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.

1. **REMOVE REAR DRIVE SHAFT INBOARD JOINT BOOT NO. 2 CLAMP LH**
   a. Using needle-nose pliers, remove the inboard joint boot clamp, as shown.
Fig. 93: Removing Rear Drive Shaft Inboard Joint Boot No. 2 Clamp LH  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. REMOVE REAR DRIVE SHAFT INBOARD JOINT BOOT CLAMP LH
   a. Using needle-nose pliers, remove the inboard joint boot clamp, as shown.
3. REMOVE REAR AXLE INBOARD JOINT BOOT
   a. Remove the boot from the inboard joint.

4. REMOVE REAR DRIVE SHAFT INBOARD JOINT ASSEMBLY LH
   a. Remove any old grease from the inboard joint.
   b. Put matchmarks on the inboard joint and outboard joint shaft.
c. Remove the inboard joint from the outboard joint shaft.
d. Using a snap ring expander, remove the shaft snap ring.

Fig. 95: Putting Matchmarks On Inboard Joint And Outboard Joint Shaft
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NOTE: Do not punch the marks.
e. Put matchmarks on the outboard joint shaft and tripod joint.
Fig. 97: Putting Matchmarks On Outboard Joint Shaft & Tripod Joint
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NOTE: Do not punch the marks.

f. Using a brass bar and hammer, tap out the tripod joint from the outboard joint shaft.

NOTE: Do not tap the rollers.

g. Remove the inboard joint boot.

5. REMOVE REAR DRIVE SHAFT INBOARD JOINT LH SHAFT SNAP RING
   a. Using a screwdriver, remove the hole snap ring.
Fig. 98: Removing Rear Drive Shaft Inboard Joint Hole Snap Ring
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. REMOVE REAR DRIVE SHAFT DUST COVER LH
   a. Using SST and a press, press out the shaft dust cover.

   SST 09950-00020

   NOTE: Be careful not to drop the inboard joint.
REASSEMBLY

HINT:

- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.

1. INSTALL REAR DRIVE SHAFT DUST COVER LH

   **SST 09527-10011**
Fig. 100: Installing Rear Drive Shaft Dust Cover LH
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

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

2. INSTALL REAR DRIVE SHAFT INBOARD JOINT SHAFT SNAP RING LH
   a. Install a new hole snap ring.

3. INSTALL REAR DRIVE SHAFT INBOARD JOINT ASSEMBLY LH
   a. Wrap the spline of the outboard joint shaft with vinyl tape to prevent the boots from being damaged.
   b. Install new parts to the outboard joint shaft in the following order.
      1. Inboard joint boot clamp
      2. No. 2 inboard joint boot clamp
      3. Inboard joint boot
   c. Place the beveled side of the tripod axial spline toward the outboard joint.
   d. Align the matchmarks placed before removal.
   e. Using a brass bar and hammer, tap the tripod joint onto the drive shaft.
Fig. 101: Taping Tripod Joint Onto Drive Shaft
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

**NOTE:**

- Do not tap the rollers.
- Be sure to install the tripod joint in the correct direction.

f. Pack the inboard joint shaft and boot with grease from the boot kit.

**Standard grease capacity:**

86 to 96 g (3.0 to 3.4 oz.)

g. Using a snap ring expander, install a new shaft snap ring.
h. Align the matchmarks, and install the inboard joint to the outboard joint shaft.

4. INSTALL REAR AXLE INBOARD JOINT BOOT
   a. Install the inboard joint boot to the inboard joint.

5. INSTALL REAR DRIVE SHAFT INBOARD JOINT BOOT NO. 2 CLAMP LH
   a. Using needle-nose pliers, install the No. 2 inboard joint boot clamp, as shown in the illustration.

   NOTE: Be careful not to damage the boot.
6. INSTALL REAR DRIVE SHAFT INBOARD JOINT BOOT CLAMP LH
   a. Using a screwdriver, install the inboard joint boot clamp, as shown in the illustration.

   **NOTE:** Be careful not to damage the boot.
7. **INSPECT REAR DRIVE SHAFT**

   a. Check that there is no severe play in the radial direction of the outboard joint.
   b. Check that the inboard joint slides smoothly in the thrust direction.
   c. Check that there is no severe play in the radial direction of the inboard joint.
d. Check the boots for damage.

**NOTE:** Keep the drive shaft assembly level during inspection.

**HINT:**

For dimension (A), refer to the following values.

**Reference value:**

733.8 mm (28.890 in.)
**Installation**

**Hint:**

- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.

1. **Install Rear Drive Shaft Assembly LH**
   a. Align the splines of the rear drive shaft outboard joints and, install the left and right rear drive shafts to the axle hub.

2. **Install Differential Carrier Assembly**
   a. Apply hypoid gear oil to the splines of the left and right rear drive shaft inboard joints.
   b. Align the splines of the rear drive shaft inboard joints and, using a brass bar and hammer, tap in the left and right rear drive shafts.
HINT:

Determine whether or not the rear drive shaft is completely tapped in by checking for changes in sound or the reaction force of the brass bar.

c. Slowly raise the transmission jack, fix the nuts in place and install the 3 bolts.

**Torque:** 86 N*m (877 kgf*cm, 63 ft.*lbf) for bolt A 140 N*m (1,428 kgf*cm, 103 ft.*lbf) for bolt B

**NOTE:**

- Face the cutout section of the snap ring downward.
- Do not damage the oil seal during the insertion.
- Do not strike the tip of the outboard joint with the hammer.
Fig. 108: Installing Differential Carrier Assembly Support Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.
3. INSTALL SKID CONTROL SENSOR WIRE (for 2WD) (See INSPECTION)
4. INSTALL REAR SPEED SENSOR LH (for 4WD) (See INSTALLATION)
5. INSTALL REAR AXLE SHAFT NUT (See INSTALLATION)
6. TEMPORARILY INSTALL PROPELLER WITH CENTER BEARING SHAFT ASSEMBLY (See INSTALLATION)
7. TIGHTEN PROPELLER WITH CENTER BEARING SHAFT ASSEMBLY (See INSTALLATION)
8. INSPECT AND ADJUST JOINT ANGLE (See INSPECTION)
9. INSTALL CENTER EXHAUST PIPE ASSEMBLY (See INSTALLATION)
10. INSTALL TAILPIPE ASSEMBLY (See INSTALLATION)
11. INSTALL REAR WHEEL
   Torque: 103 N*m (1,050 kgf*cm, 76 ft.*lbf)
12. ADD DIFFERENTIAL OIL (See DIFFERENTIAL OIL)
13. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

   NOTE: When the warning light is illuminated or the battery has been disconnected and reconnected, turning the power switch may not start the system on the first try. If so, turn the power switch again.

14. CHECK FOR DIFFERENTIAL OIL LEAKAGE
15. CHECK FOR EXHAUST GAS LEAKAGE

   If gas is leaking, tighten the areas necessary to stop the leak. Replace damaged parts as necessary.

16. INSPECT REAR WHEEL ALIGNMENT
   a. Inspect the rear wheel alignment (see REAR WHEEL ALIGNMENT).